

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: P367825

Luminaire Tested: **MSA-SA3B-730-U-T3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367825
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-730-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: 9887 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

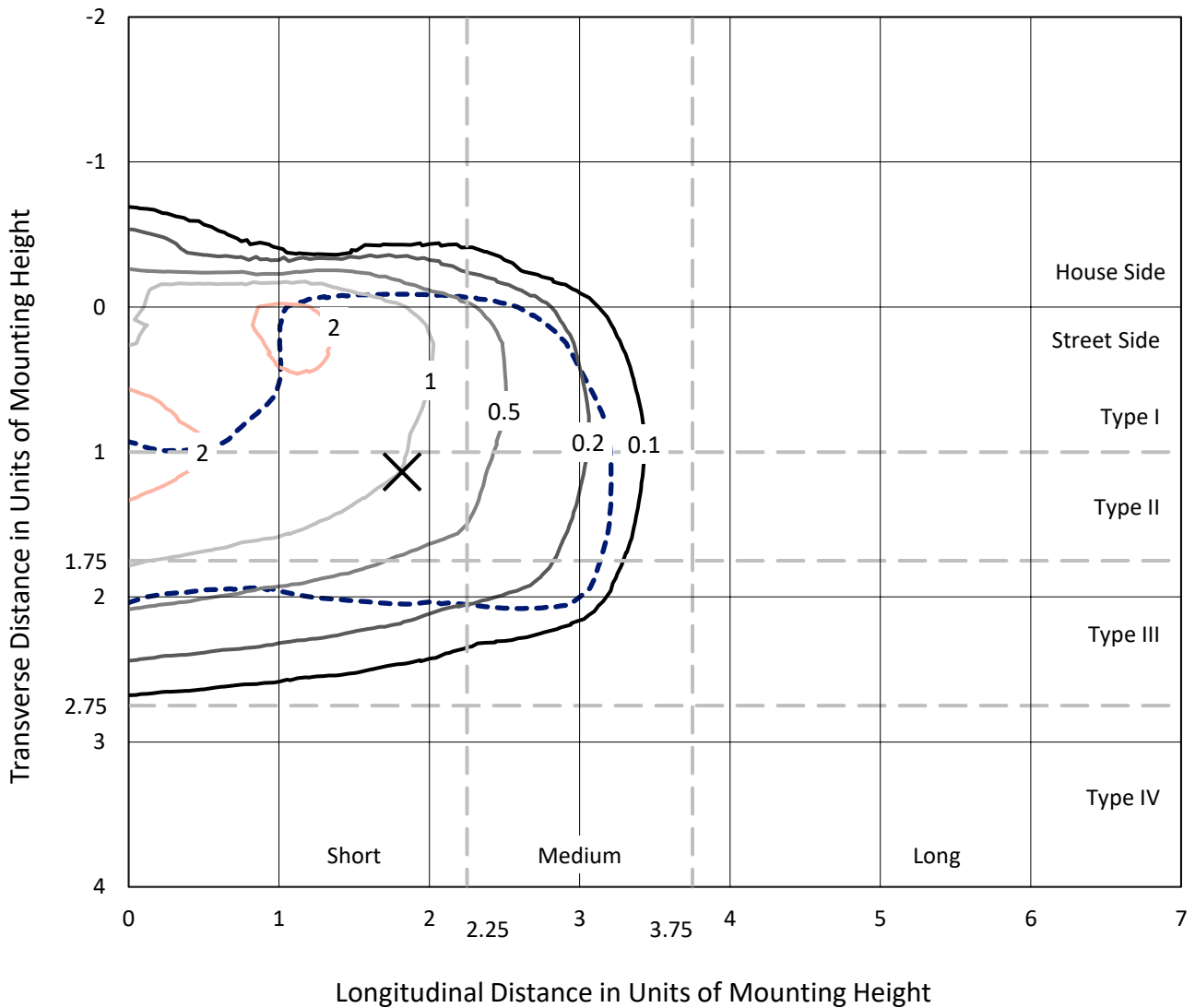
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

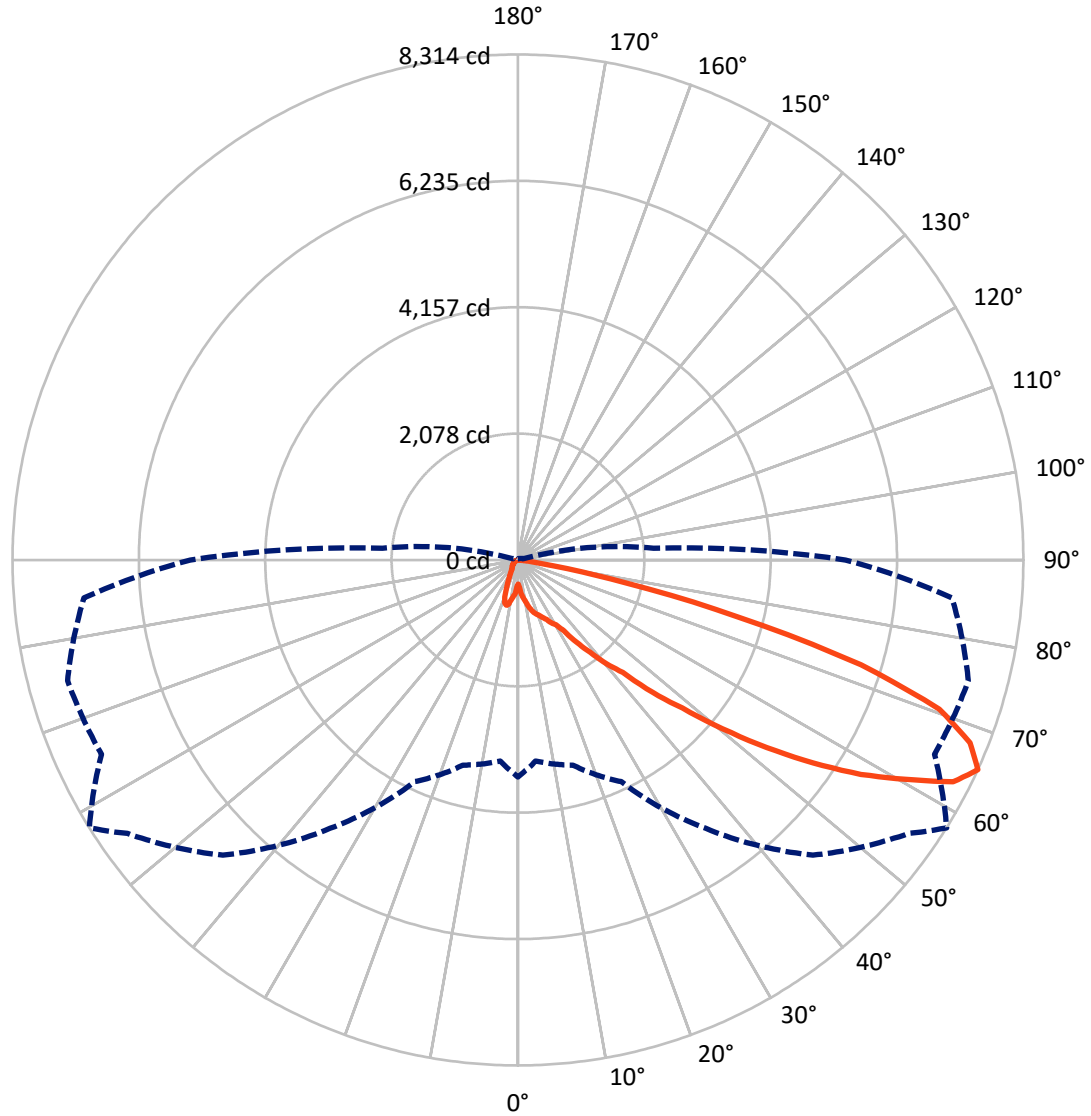
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 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	975.6	0.0	975.6
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	8911.4	0.0	8911.4
	% Fixture	90.1	0.0	90.1
Total	Lumens	9887.0	0.0	9887.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.6	0.6
10°-20°	202.9	2.1
20°-30°	392.8	4.0
30°-40°	783.8	7.9
40°-50°	1602.3	16.2
50°-60°	2842.1	28.7
60°-70°	2996.3	30.3
70°-80°	971.4	9.8
80°-90°	39.7	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°	9887.0	100.0
0°-180°	9887.0	100.0

Coefficient of Utilization



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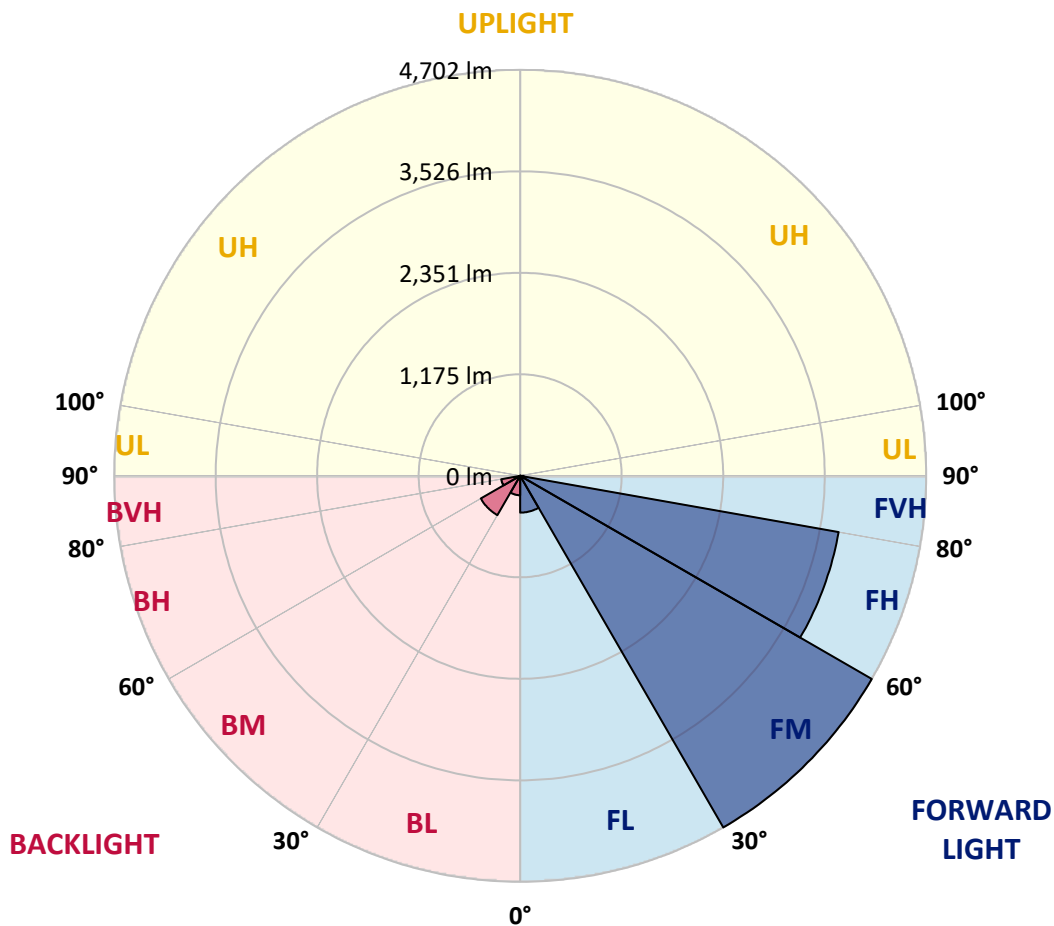
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	426.5	4.3			
FM (30°-60°)	4701.8	47.6			
FH (60°-80°)	3745.1	37.9			G2/5000
FVH (80°-90°)	38.0	0.4			G1/100
BL (0°-30°)	224.9	2.3	B1/500		
BM (30°-60°)	526.4	5.3	B1/1000		
BH (60°-80°)	222.7	2.3	B1/500		G1/500
BVH (80°-90°)	1.7	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°	395.8	395.8	395.8	395.8	395.8	395.8	395.8	395.8	395.8	395.8	395.8
2.5°	483.2	468.7	445.9	449.8	454.2	463.1	455.9	449.2	442.0	432.5	468.7
5°	583.4	559.5	557.2	552.2	548.3	547.8	556.7	553.9	557.8	575.6	594.0
7.5°	620.1	610.1	591.2	599.0	586.7	577.3	616.8	629.6	654.1	662.4	710.3
10°	616.2	601.8	609.6	613.4	621.8	656.3	681.4	695.3	716.4	762.1	752.6
12.5°	634.0	646.8	655.2	655.8	698.6	762.1	779.9	791.6	829.4	847.3	894.0
15°	693.6	714.8	701.4	707.0	720.9	798.3	840.0	865.6	919.1	977.0	988.6
17.5°	778.8	792.1	764.3	744.3	782.7	825.0	900.7	927.4	961.4	1096.6	1121.7
20°	886.2	909.0	848.9	769.3	820.0	870.1	952.5	965.3	1001.4	1177.9	1217.4
22.5°	1137.3	1103.3	1011.5	887.3	872.3	894.6	973.1	1023.2	1084.4	1223.6	1315.4
25°	1385.0	1373.3	1238.0	1099.4	999.2	949.1	1053.2	1081.1	1181.3	1332.1	1382.8
27.5°	1660.5	1683.9	1457.9	1373.9	1177.4	1013.7	1103.3	1172.9	1291.5	1371.6	1493.5
30°	2024.0	1986.8	1721.8	1637.7	1413.4	1191.3	1233.0	1237.5	1411.7	1501.9	1617.7
32.5°	2309.1	2333.0	2000.1	1871.0	1691.7	1464.6	1330.4	1388.3	1513.0	1714.0	1823.6
35°	2617.5	2615.2	2290.7	2117.0	1882.7	1687.8	1619.4	1661.7	1818.1	2045.8	2074.7
37.5°	3078.4	3038.9	2655.9	2401.5	2202.2	2035.7	1983.4	1927.2	2088.6	2305.7	2414.3
40°	3513.1	3376.8	3022.7	2721.0	2466.0	2398.1	2208.9	2243.4	2291.3	2577.9	2878.0
42.5°	3952.4	3867.7	3394.6	3141.8	2828.4	2667.0	2543.4	2527.3	2755.0	3094.5	3404.6
45°	4531.8	4273.0	3894.5	3672.3	3309.4	3147.4	3047.8	3107.3	3312.2	3808.2	4014.7
47.5°	5018.4	4780.1	4455.0	4117.7	3736.9	3919.0	3731.9	3637.8	3919.0	4431.6	4706.1
50°	5436.4	5170.9	4841.9	4592.0	4530.2	4705.0	4326.4	4360.9	4543.5	5145.9	5300.6
52.5°	5740.4	5460.9	5173.7	5052.9	5306.2	5394.1	5204.3	5128.0	5293.9	5754.8	5830.0
55°	5969.2	5683.0	5458.7	5625.1	6115.0	6086.1	6152.9	5892.3	6051.0	6390.0	6354.4
57.5°	5983.1	5644.1	5512.7	5780.5	6452.9	6901.0	7096.4	6653.3	6743.5	6886.6	6806.4
60°	5545.5	5208.2	5197.6	5577.8	6550.9	7112.0	7539.5	7323.5	7202.7	7309.1	7157.1
62.5°	4673.8	4437.8	4548.0	4968.3	6186.3	6995.7	7775.6	8035.5	7565.1	7589.1	7373.1
65°	3568.8	3321.1	3493.7	4023.0	5389.1	6865.4	7842.4	8313.9	7558.5	7668.7	7166.0
67.5°	2363.6	2220.0	2415.4	2998.8	4284.7	6060.5	7807.8	8021.6	7318.5	7357.5	6397.2
70°	1220.2	1185.1	1343.2	1803.6	2880.8	4656.0	7468.8	7351.9	6831.4	6338.2	4934.3
72.5°	390.8	392.5	544.4	823.9	1553.1	2834.6	5740.9	5901.3	5466.5	4636.5	3012.7
75°	173.1	170.3	227.7	345.7	647.4	1270.9	3566.6	3739.7	3403.5	2550.7	1266.4
77.5°	124.7	120.8	145.8	202.1	320.6	430.9	1672.2	1804.7	1543.1	884.0	290.0
80°	88.0	87.4	105.8	142.0	200.4	191.5	528.3	592.3	474.3	214.3	85.2
82.5°	49.5	51.2	73.5	100.2	121.9	95.7	148.6	163.7	159.8	114.1	37.3
85°	23.9	26.7	47.9	72.4	64.0	37.3	52.9	57.3	66.8	66.2	18.9
87.5°	0.0	0.0	19.5	32.8	17.3	5.6	16.1	18.4	17.8	21.2	4.5
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°	395.8	395.8	395.8	395.8	395.8	395.8	395.8	395.8	395.8	395.8	395.8
2.5°	476.0	472.6	430.3	433.6	443.1	439.2	442.6	434.8	425.9	462.0	461.5
5°	601.8	576.7	563.3	551.1	553.3	528.3	542.8	549.4	548.3	568.9	574.5
7.5°	712.0	678.6	651.9	626.3	587.3	552.2	573.9	587.8	597.3	632.9	646.8
10°	763.8	736.5	725.9	675.8	648.0	626.3	600.1	581.2	589.0	579.5	589.0
12.5°	877.3	858.9	818.3	767.6	734.2	689.7	592.3	511.0	460.9	461.5	458.1
15°	980.9	979.7	919.1	835.0	738.1	611.2	459.3	356.8	309.5	296.1	291.7
17.5°	1116.1	1099.4	988.6	864.5	690.3	473.2	312.8	244.4	239.9	247.7	244.4
20°	1202.4	1177.9	1023.2	821.6	568.9	320.1	236.0	216.5	229.9	241.0	238.3
22.5°	1288.7	1251.9	1049.3	769.3	404.7	234.4	213.2	209.9	218.2	232.1	234.4
25°	1336.0	1328.8	1100.5	671.3	277.2	205.4	205.4	204.3	207.1	217.1	215.4
27.5°	1473.5	1375.5	1062.1	523.8	214.3	188.7	191.5	190.4	180.4	190.4	190.9
30°	1559.2	1514.1	1064.9	373.0	188.7	167.0	174.2	165.3	150.3	158.7	157.0
32.5°	1731.8	1619.4	1056.6	251.6	172.0	159.2	148.1	135.3	124.1	127.5	124.7
35°	1932.8	1847.0	943.6	202.1	160.3	140.8	123.0	110.2	98.5	101.3	100.8
37.5°	2332.4	2060.2	850.0	182.0	152.5	129.1	108.6	90.7	84.6	86.3	88.0
40°	2702.6	2415.9	675.8	173.1	139.2	115.2	89.6	76.8	72.9	74.0	75.7
42.5°	3256.0	2698.7	510.5	164.2	125.8	97.4	74.6	66.2	62.3	64.6	65.7
45°	3791.5	2939.2	381.3	156.4	114.7	84.1	62.9	57.3	52.9	54.6	56.8
47.5°	4326.4	3206.4	284.5	144.2	102.4	72.4	54.0	50.1	47.3	47.9	50.7
50°	4805.2	3331.1	223.8	129.1	92.4	62.9	49.0	45.1	44.0	44.5	46.8
52.5°	5157.0	3332.2	188.7	115.8	82.9	55.7	46.2	41.8	41.2	42.3	44.5
55°	5474.8	3243.2	163.7	104.1	74.6	50.7	44.0	40.1	40.1	41.2	43.4
57.5°	5685.8	3079.5	142.0	91.9	67.4	47.9	42.3	38.4	37.9	37.3	39.0
60°	5788.8	2856.3	120.2	80.7	60.7	46.2	41.2	34.0	33.4	32.3	33.4
62.5°	5723.7	2576.8	100.8	69.6	54.0	44.0	36.2	29.5	28.4	26.2	27.8
65°	5390.8	2237.3	85.2	59.6	46.8	37.3	30.6	25.1	22.3	19.5	18.9
67.5°	4710.0	1817.5	71.3	51.2	40.1	30.6	25.1	22.3	17.3	15.0	14.5
70°	3529.8	1240.8	59.0	44.0	33.4	26.2	21.2	20.0	16.1	14.5	13.4
72.5°	2070.8	669.7	49.5	38.4	28.4	21.7	17.3	18.4	16.1	13.4	12.2
75°	827.2	222.7	39.5	30.6	22.8	15.6	14.5	15.0	14.5	12.2	10.0
77.5°	188.7	70.1	30.6	23.9	17.8	10.0	11.7	12.8	12.8	10.0	7.2
80°	59.0	27.8	17.8	15.0	12.8	5.6	8.4	8.9	6.1	2.8	0.0
82.5°	18.9	7.8	6.1	6.1	5.6	1.1	1.7	1.1	0.0	0.0	0.0
85°	7.2	5.0	3.9	3.9	2.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.8	2.2	1.7	2.2	1.1	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)