

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: P367979

Luminaire Tested: **MSA-SA3C-740-U-T3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367979
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-SA3C-740-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: 13444 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G3

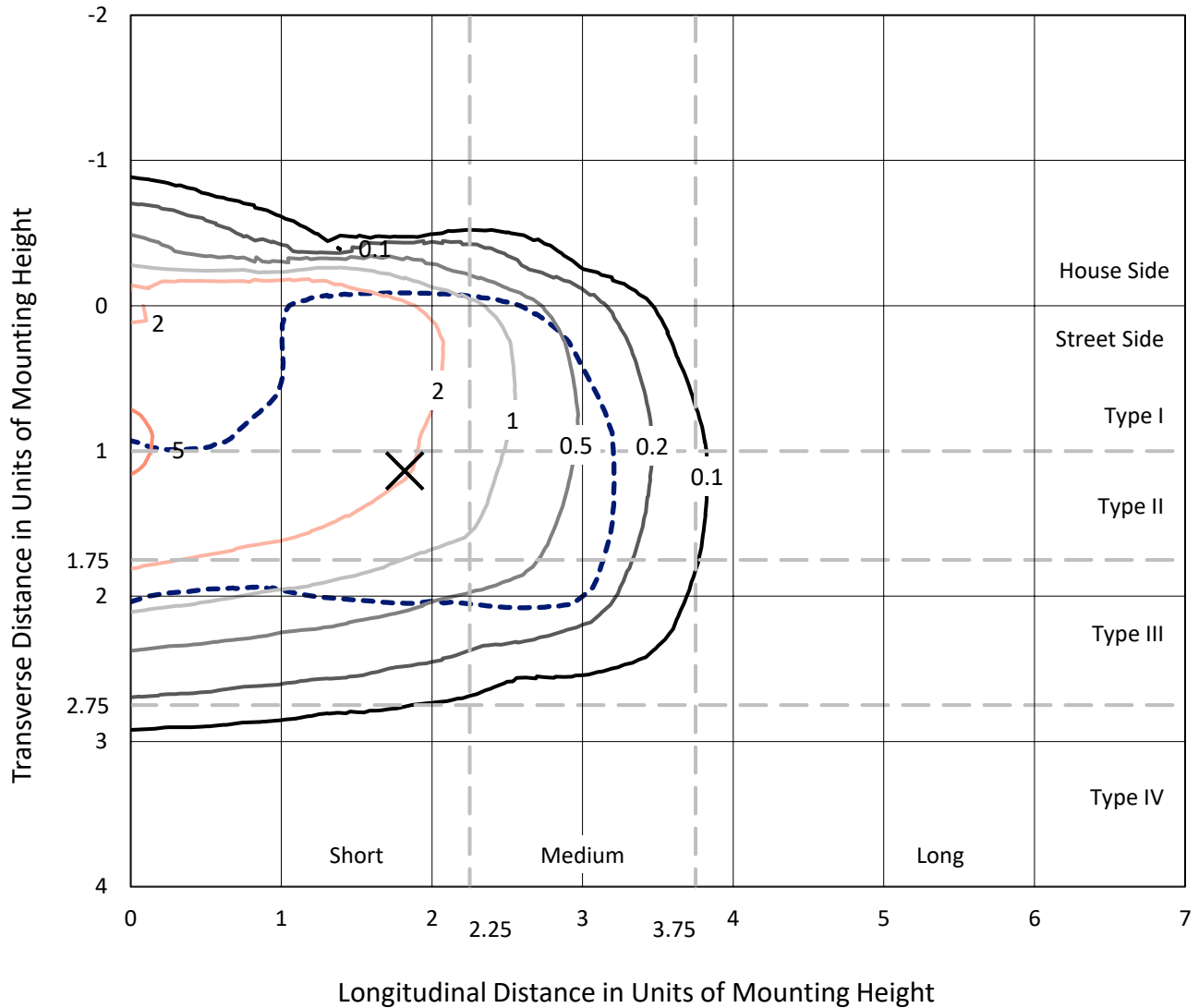
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

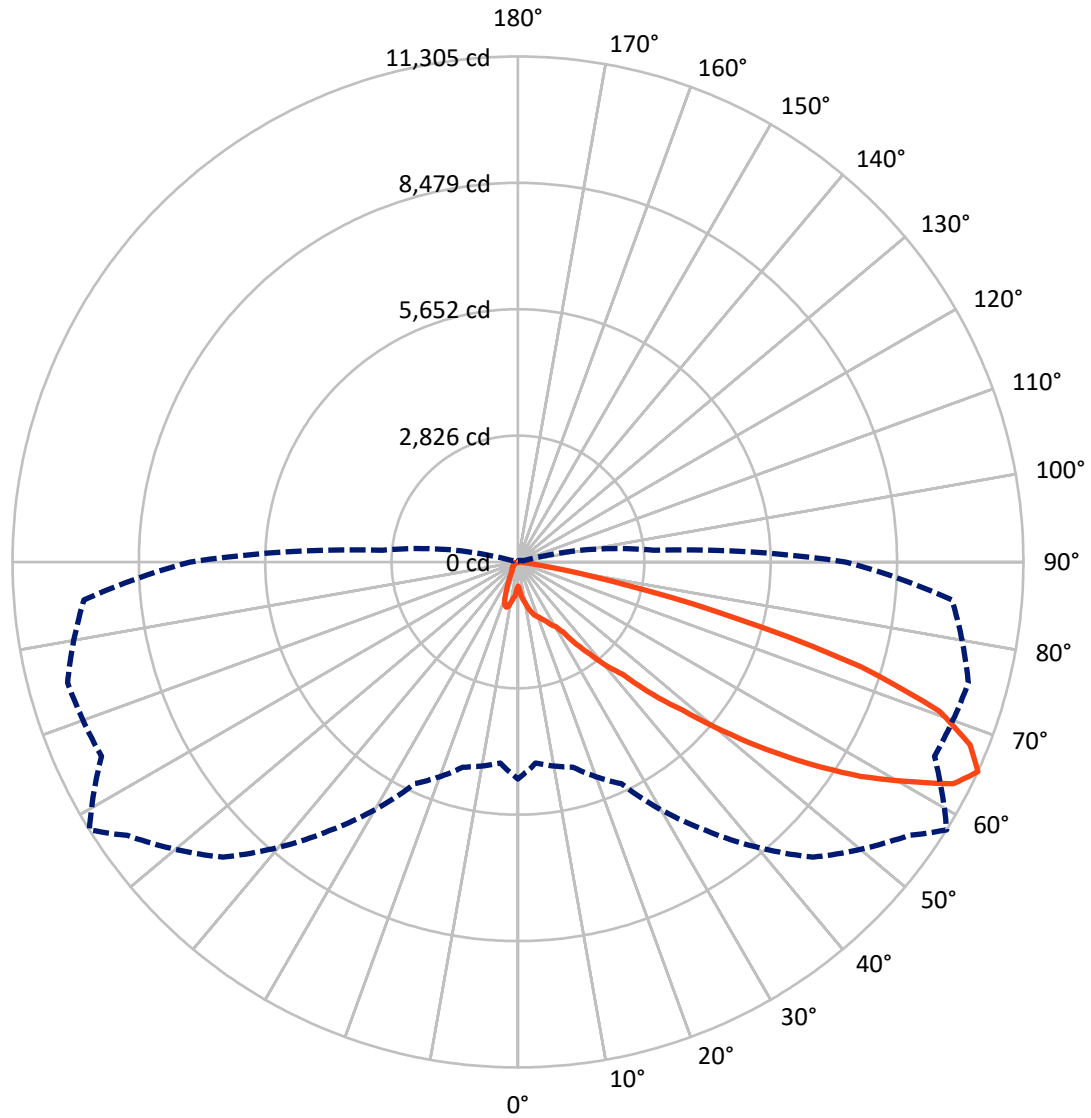
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.4 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	1326.6	0.0	1326.6
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	12117.4	0.0	12117.4
	% Fixture	90.1	0.0	90.1
Total	Lumens	13444.0	0.0	13444.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	0.6
10°-20°	276.0	2.1
20°-30°	534.2	4.0
30°-40°	1065.7	7.9
40°-50°	2178.8	16.2
50°-60°	3864.5	28.7
60°-70°	4074.3	30.3
70°-80°	1320.9	9.8
80°-90°	54.0	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°	13444.0	100.0
0°-180°	13444.0	100.0

Coefficient of Utilization



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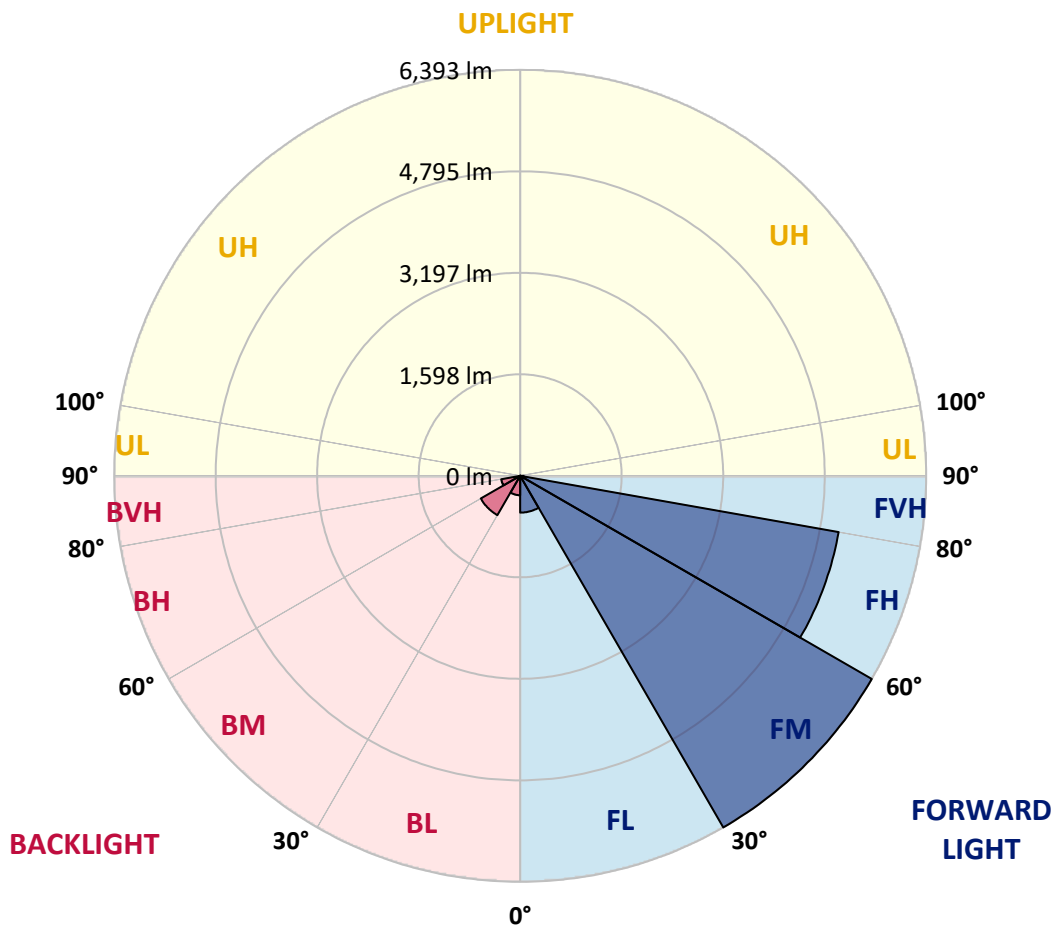
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	580.0	4.3			
FM (30°-60°)	6393.3	47.6			
FH (60°-80°)	5092.4	37.9			G3/7500
FVH (80°-90°)	51.7	0.4			G1/100
BL (0°-30°)	305.8	2.3	B1/500		
BM (30°-60°)	715.7	5.3	B1/1000		
BH (60°-80°)	302.8	2.3	B1/500		G1/500
BVH (80°-90°)	2.3	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-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	538.2	538.2	538.2	538.2	538.2	538.2	538.2	538.2	538.2	538.2	538.2
2.5°	657.0	637.3	606.3	611.6	617.7	629.8	619.9	610.9	601.0	588.1	637.3
5°	793.3	760.7	757.7	750.9	745.6	744.8	756.9	753.2	758.5	782.7	807.7
7.5°	843.2	829.6	803.9	814.5	797.8	784.9	838.7	856.1	889.4	900.8	965.9
10°	837.9	818.3	828.8	834.1	845.5	892.4	926.5	945.4	974.2	1036.3	1023.4
12.5°	862.2	879.6	890.9	891.7	950.0	1036.3	1060.5	1076.4	1127.8	1152.1	1215.6
15°	943.1	971.9	953.7	961.3	980.2	1085.5	1142.2	1177.0	1249.7	1328.4	1344.3
17.5°	1059.0	1077.1	1039.3	1012.0	1064.3	1121.8	1224.7	1261.1	1307.2	1491.2	1525.2
20°	1205.0	1236.1	1154.3	1046.1	1115.0	1183.1	1295.1	1312.5	1361.7	1601.7	1655.4
22.5°	1546.4	1500.3	1375.4	1206.6	1186.1	1216.4	1323.1	1391.3	1474.5	1663.8	1788.6
25°	1883.3	1867.4	1683.4	1495.0	1358.7	1290.6	1432.1	1470.0	1606.2	1811.4	1880.2
27.5°	2258.0	2289.7	1982.4	1868.1	1600.9	1378.4	1500.3	1594.9	1756.1	1865.1	2030.9
30°	2752.2	2701.5	2341.2	2226.9	1921.9	1619.9	1676.6	1682.7	1919.6	2042.2	2199.7
32.5°	3139.8	3172.3	2719.7	2544.1	2300.3	1991.5	1809.1	1887.8	2057.4	2330.6	2479.7
35°	3559.1	3556.1	3114.8	2878.6	2560.0	2295.0	2201.9	2259.5	2472.2	2781.8	2821.1
37.5°	4185.9	4132.1	3611.4	3265.4	2994.5	2768.1	2697.0	2620.5	2840.0	3135.2	3282.8
40°	4777.0	4591.6	4110.2	3699.9	3353.2	3260.9	3003.5	3050.5	3115.6	3505.4	3913.4
42.5°	5374.3	5259.2	4615.8	4272.2	3846.0	3626.5	3458.5	3436.5	3746.1	4207.8	4629.4
45°	6162.2	5810.3	5295.6	4993.5	4500.0	4279.7	4144.2	4225.2	4503.8	5178.2	5459.0
47.5°	6823.8	6499.8	6057.8	5599.1	5081.3	5328.9	5074.5	4946.6	5328.9	6026.0	6399.2
50°	7392.3	7031.2	6583.9	6244.0	6160.0	6397.7	5882.9	5929.9	6178.1	6997.2	7207.6
52.5°	7805.6	7425.6	7035.0	6870.7	7215.1	7334.7	7076.6	6972.9	7198.5	7825.2	7927.4
55°	8116.7	7727.6	7422.6	7648.9	8315.0	8275.6	8366.5	8012.2	8227.9	8688.9	8640.5
57.5°	8135.6	7674.6	7496.0	7860.1	8774.4	9383.8	9649.5	9046.9	9169.6	9364.1	9255.1
60°	7540.6	7081.9	7067.5	7584.5	8907.7	9670.7	10252.0	9958.3	9794.0	9938.6	9732.0
62.5°	6355.3	6034.3	6184.2	6755.7	8411.9	9512.5	10572.9	10926.4	10286.8	10319.4	10025.7
65°	4852.7	4515.9	4750.6	5470.4	7327.9	9335.3	10663.8	11304.9	10277.7	10427.6	9744.1
67.5°	3214.0	3018.7	3284.4	4077.6	5826.2	8240.8	10616.8	10907.5	9951.5	10004.5	8698.8
70°	1659.2	1611.5	1826.5	2452.5	3917.2	6331.0	10155.9	9996.9	9289.2	8618.5	6709.5
72.5°	531.4	533.6	740.3	1120.3	2111.9	3854.3	7806.3	8024.3	7433.1	6304.6	4096.6
75°	235.4	231.6	309.6	470.1	880.3	1728.1	4849.7	5085.1	4627.9	3468.3	1722.0
77.5°	169.6	164.3	198.3	274.8	436.0	585.9	2273.8	2454.0	2098.2	1202.0	394.4
80°	119.6	118.8	143.8	193.0	272.5	260.4	718.3	805.4	644.9	291.4	115.8
82.5°	67.4	69.6	99.9	136.2	165.8	130.2	202.1	222.5	217.2	155.2	50.7
85°	32.5	36.3	65.1	98.4	87.0	50.7	71.9	78.0	90.8	90.1	25.7
87.5°	0.0	0.0	26.5	44.7	23.5	7.6	22.0	25.0	24.2	28.8	6.1
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°	538.2	538.2	538.2	538.2	538.2	538.2	538.2	538.2	538.2	538.2	538.2
2.5°	647.2	642.6	585.1	589.7	602.5	597.2	601.8	591.2	579.1	628.3	627.5
5°	818.3	784.2	766.0	749.4	752.4	718.3	738.0	747.1	745.6	773.6	781.2
7.5°	968.1	922.7	886.4	851.6	798.6	750.9	780.4	799.3	812.2	860.6	879.6
10°	1038.5	1001.4	987.0	918.9	881.1	851.6	816.0	790.2	800.8	788.0	800.8
12.5°	1192.9	1168.0	1112.7	1043.8	998.4	937.8	805.4	694.9	626.7	627.5	623.0
15°	1333.7	1332.2	1249.7	1135.4	1003.7	831.1	624.5	485.2	420.9	402.7	396.6
17.5°	1517.7	1495.0	1344.3	1175.5	938.6	643.4	425.4	332.3	326.2	336.8	332.3
20°	1635.0	1601.7	1391.3	1117.2	773.6	435.2	320.9	294.4	312.6	327.8	324.0
22.5°	1752.3	1702.4	1426.8	1046.1	550.3	318.7	289.9	285.4	296.7	315.6	318.7
25°	1816.7	1806.8	1496.5	912.9	377.0	279.3	279.3	277.8	281.6	295.2	292.9
27.5°	2003.6	1870.4	1444.2	712.3	291.4	256.6	260.4	258.9	245.2	258.9	259.6
30°	2120.2	2058.9	1448.0	507.1	256.6	227.1	236.9	224.8	204.4	215.7	213.5
32.5°	2354.8	2201.9	1436.7	342.1	233.9	216.5	201.3	183.9	168.8	173.3	169.6
35°	2628.1	2511.5	1283.0	274.8	218.0	191.5	167.3	149.9	134.0	137.8	137.0
37.5°	3171.6	2801.4	1155.8	247.5	207.4	175.6	147.6	123.4	115.1	117.3	119.6
40°	3674.9	3285.1	918.9	235.4	189.2	156.7	121.9	104.5	99.2	100.7	102.9
42.5°	4427.3	3669.6	694.1	223.3	171.1	132.5	101.4	90.1	84.8	87.8	89.3
45°	5155.5	3996.6	518.5	212.7	155.9	114.3	85.5	78.0	71.9	74.2	77.2
47.5°	5882.9	4360.0	386.8	196.0	139.3	98.4	73.4	68.1	64.3	65.1	68.9
50°	6533.9	4529.5	304.3	175.6	125.7	85.5	66.6	61.3	59.8	60.6	63.6
52.5°	7012.3	4531.0	256.6	157.4	112.8	75.7	62.8	56.8	56.0	57.5	60.6
55°	7444.5	4409.9	222.5	141.5	101.4	68.9	59.8	54.5	54.5	56.0	59.0
57.5°	7731.4	4187.4	193.0	124.9	91.6	65.1	57.5	52.2	51.5	50.7	53.0
60°	7871.4	3883.9	163.5	109.8	82.5	62.8	56.0	46.2	45.4	43.9	45.4
62.5°	7782.9	3503.9	137.0	94.6	73.4	59.8	49.2	40.1	38.6	35.6	37.8
65°	7330.2	3042.1	115.8	81.0	63.6	50.7	41.6	34.1	30.3	26.5	25.7
67.5°	6404.5	2471.4	96.9	69.6	54.5	41.6	34.1	30.3	23.5	20.4	19.7
70°	4799.8	1687.2	80.2	59.8	45.4	35.6	28.8	27.2	22.0	19.7	18.2
72.5°	2815.8	910.6	67.4	52.2	38.6	29.5	23.5	25.0	22.0	18.2	16.7
75°	1124.8	302.8	53.7	41.6	31.0	21.2	19.7	20.4	19.7	16.7	13.6
77.5°	256.6	95.4	41.6	32.5	24.2	13.6	15.9	17.4	17.4	13.6	9.8
80°	80.2	37.8	24.2	20.4	17.4	7.6	11.4	12.1	8.3	3.8	0.0
82.5°	25.7	10.6	8.3	8.3	7.6	1.5	2.3	1.5	0.0	0.0	0.0
85°	9.8	6.8	5.3	5.3	3.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.8	3.0	2.3	3.0	1.5	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)