

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: P367396

Luminaire Tested: **MSA-SA2C-727-U-SL2**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367396
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-16)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2C-727-U-SL2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10249 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G3

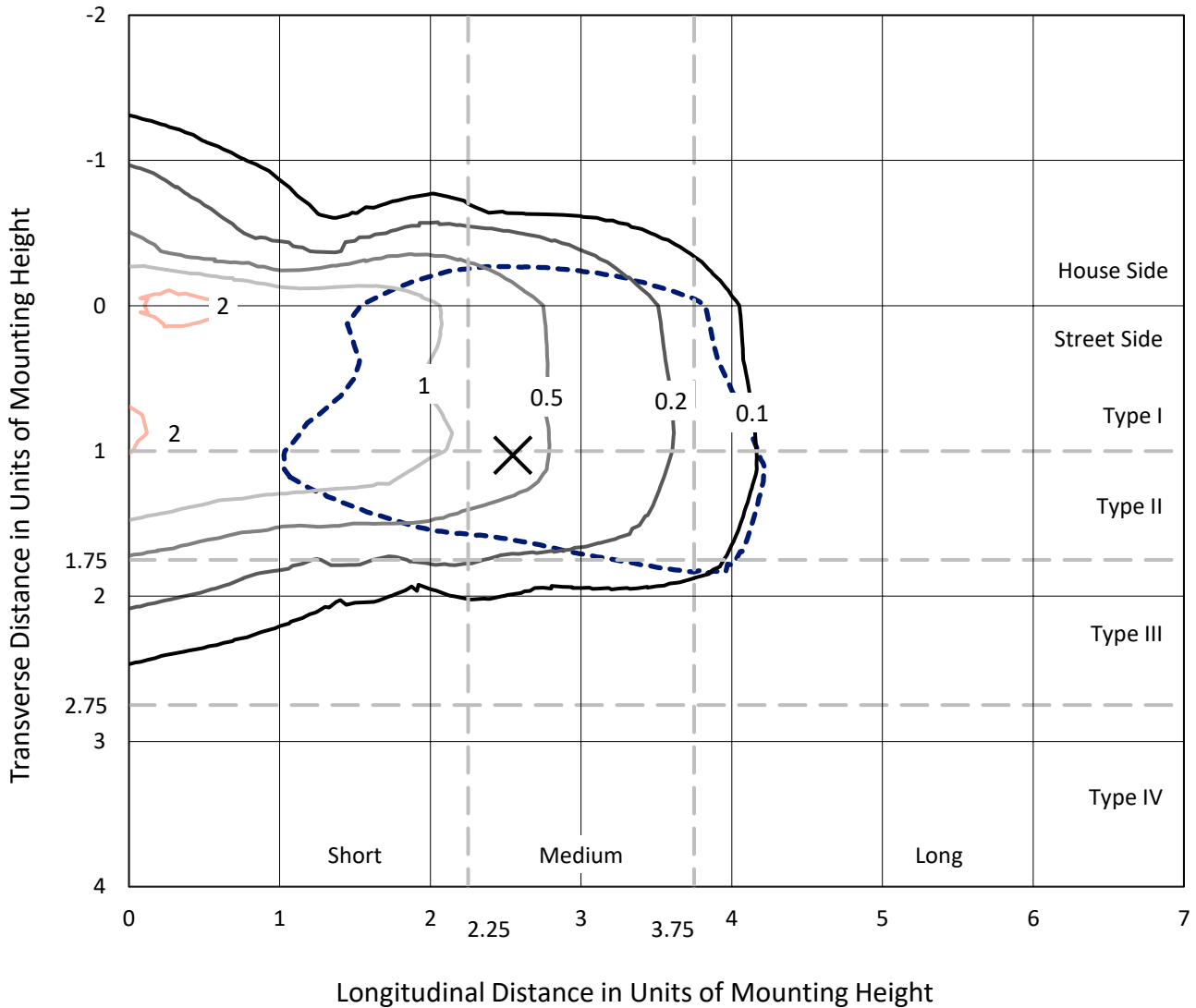
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

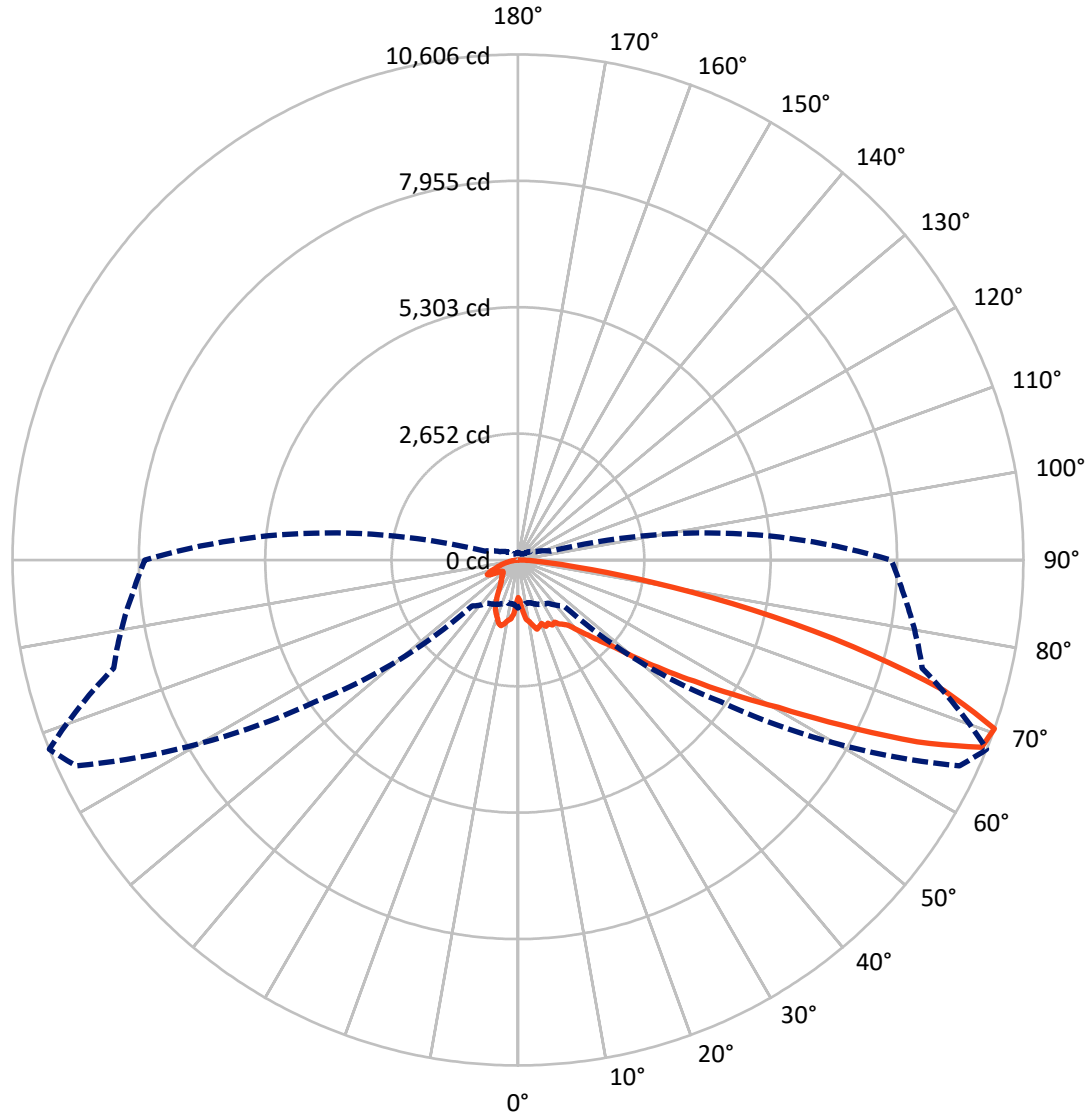
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1956.8	0.0	1956.8
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	8292.2	0.0	8292.2
	% Fixture	80.9	0.0	80.9
Total	Lumens	10249.0	0.0	10249.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.9	1.0
10°-20°	342.1	3.3
20°-30°	520.4	5.1
30°-40°	794.8	7.8
40°-50°	1366.6	13.3
50°-60°	2262.1	22.1
60°-70°	2788.8	27.2
70°-80°	1791.5	17.5
80°-90°	277.9	2.7
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°	10249.0	100.0
0°-180°	10249.0	100.0

Coefficient of Utilization



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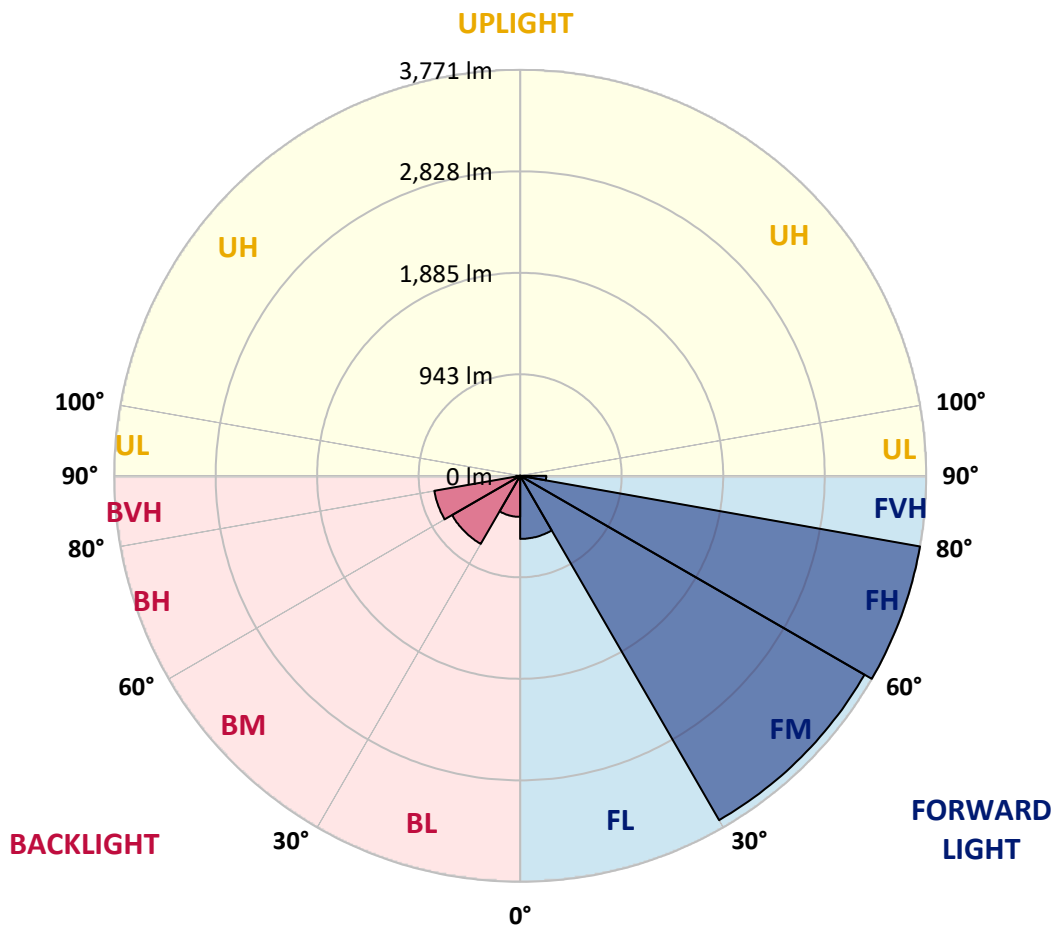
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	586.1	5.7			
FM (30°-60°)	3693.1	36.0			
FH (60°-80°)	3770.8	36.8			G2/5000
FVH (80°-90°)	242.2	2.4			G3/500
BL (0°-30°)	381.3	3.7	B1/500		
BM (30°-60°)	730.4	7.1	B1/1000		
BH (60°-80°)	809.4	7.9	B2/1000		G2/1000
BVH (80°-90°)	35.7	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	785.8	785.8	785.8	785.8	785.8	785.8	785.8	785.8	785.8	785.8	785.8
2.5°	902.9	866.5	829.6	847.6	876.3	901.6	896.5	899.5	864.8	860.0	951.4
5°	1063.8	1001.2	999.9	1000.7	1003.3	974.1	1045.3	1082.2	1090.4	1128.1	1217.8
7.5°	1119.5	1094.2	1068.5	1081.4	1048.8	1051.8	1139.3	1235.4	1258.1	1285.5	1408.2
10°	1108.0	1083.9	1091.7	1093.8	1099.8	1148.3	1204.5	1296.7	1316.0	1403.5	1435.2
12.5°	1109.7	1105.4	1141.4	1142.7	1207.1	1294.1	1316.4	1401.4	1409.1	1473.4	1606.0
15°	1168.4	1198.0	1177.9	1188.6	1201.0	1305.3	1337.5	1459.3	1505.6	1588.4	1687.9
17.5°	1283.0	1291.6	1231.1	1215.2	1256.0	1287.7	1361.0	1413.8	1462.3	1693.5	1830.7
20°	1309.6	1332.7	1260.7	1178.7	1265.0	1309.1	1360.2	1384.2	1422.0	1708.9	1903.7
22.5°	1423.7	1375.6	1288.6	1217.3	1245.7	1288.6	1325.4	1415.9	1515.0	1664.7	1976.6
25°	1488.4	1460.6	1382.9	1306.6	1282.5	1283.8	1355.0	1436.1	1470.4	1729.5	1991.2
27.5°	1645.0	1600.4	1425.8	1411.2	1320.7	1250.4	1359.8	1485.9	1545.9	1678.9	2062.4
30°	1841.0	1807.1	1578.1	1558.8	1420.7	1298.0	1419.8	1522.8	1514.2	1711.9	2111.7
32.5°	1999.7	2056.4	1825.2	1672.9	1574.7	1457.1	1400.9	1516.3	1601.7	1788.7	2195.3
35°	2226.2	2279.4	2017.8	1914.8	1701.6	1530.9	1532.6	1604.7	1657.4	1878.3	2288.9
37.5°	2618.3	2571.5	2360.9	2198.3	2061.9	1807.1	1730.8	1705.5	1748.0	1988.2	2472.0
40°	2901.0	2861.5	2613.6	2520.9	2255.4	2107.4	1898.1	1874.1	1949.1	2101.4	2621.7
42.5°	3236.0	3165.6	2934.8	2858.5	2581.0	2314.2	2103.1	2116.8	2153.3	2315.0	2824.2
45°	3577.0	3406.3	3275.4	3269.4	3084.1	2715.7	2432.1	2421.0	2422.3	2629.4	3051.5
47.5°	3847.6	3694.1	3544.4	3473.2	3379.7	3410.1	2910.0	2779.1	2739.7	2946.0	3392.5
50°	4030.8	3854.1	3684.6	3667.9	3917.6	4081.8	3358.6	3218.8	3243.3	3399.0	3847.2
52.5°	4034.7	3824.9	3648.2	3765.3	4353.4	4588.4	4131.6	3740.8	3818.9	3924.8	4440.4
55°	3754.1	3536.7	3421.7	3688.5	4523.7	5189.4	5217.7	4577.3	4487.2	4526.2	5149.5
57.5°	3162.6	2943.0	2876.1	3195.6	4200.7	5768.9	6529.4	5576.7	5312.5	5149.5	5876.1
60°	2380.6	2190.6	2149.0	2352.8	3482.6	5598.6	7591.5	6820.7	6282.3	5845.7	6604.9
62.5°	1785.3	1648.9	1586.2	1615.4	2409.8	5044.8	8288.9	8392.3	7630.1	6605.8	7316.9
65°	1450.7	1340.5	1284.7	1246.9	1498.7	3900.8	8162.8	9715.2	9204.3	7404.0	7871.1
67.5°	1211.8	1114.0	1088.2	1125.1	1184.7	2263.1	7176.2	10455.1	10489.8	8191.6	8195.0
70°	1005.9	933.4	923.9	1028.6	1107.1	1365.8	5183.4	10222.6	10606.1	8782.2	8119.1
72.5°	777.2	738.2	736.9	901.2	1099.8	1164.2	3086.7	8831.1	9346.3	8593.5	7376.1
75°	539.2	512.2	532.7	740.8	1074.5	1180.9	1761.7	6878.6	7264.2	7312.7	5908.7
77.5°	371.0	348.3	370.6	535.8	959.5	1209.2	1232.4	4973.6	5016.5	4903.7	3384.4
80°	258.2	242.4	259.5	379.2	746.8	1196.8	1049.2	3131.3	2873.1	2188.5	1083.5
82.5°	160.0	155.3	174.2	270.2	525.9	1088.7	994.3	1615.8	1233.6	604.0	386.9
85°	84.1	77.2	101.2	176.3	329.0	854.5	931.7	737.4	476.1	214.5	155.3
87.5°	24.9	22.3	39.0	71.2	139.4	383.0	533.2	312.7	177.6	63.1	48.5
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°	785.8	785.8	785.8	785.8	785.8	785.8	785.8	785.8	785.8	785.8	785.8
2.5°	957.8	953.1	889.6	897.8	911.5	914.9	914.5	891.3	866.9	935.1	933.0
5°	1219.9	1177.5	1145.7	1138.8	1099.8	1060.8	1074.5	1069.8	1063.8	1094.7	1098.5
7.5°	1408.7	1349.9	1313.0	1218.2	1128.1	1050.1	1074.9	1082.7	1067.2	1123.0	1139.7
10°	1458.4	1412.1	1372.2	1250.4	1200.6	1155.1	1087.8	1011.0	1000.7	968.6	972.4
12.5°	1586.7	1580.2	1444.3	1337.0	1272.3	1181.7	1036.3	943.2	863.5	867.3	844.2
15°	1687.9	1691.3	1527.9	1377.8	1204.0	1065.9	894.8	779.0	697.0	680.7	664.0
17.5°	1823.9	1817.0	1534.8	1328.9	1108.8	906.4	696.6	581.6	567.9	577.4	562.8
20°	1883.1	1822.6	1491.0	1207.5	960.0	688.5	526.3	465.4	492.0	529.7	530.6
22.5°	1936.3	1832.9	1468.3	1109.7	761.8	500.6	422.5	411.4	442.7	493.7	498.0
25°	1934.1	1880.5	1427.5	1011.0	590.7	390.8	367.2	375.3	412.6	465.8	468.8
27.5°	2031.5	1844.0	1321.6	881.5	444.8	334.6	340.6	355.6	373.2	423.8	433.7
30°	2030.6	1911.8	1268.4	724.1	357.3	306.7	322.1	335.0	349.6	395.9	401.5
32.5°	2078.7	1867.6	1236.2	563.2	320.4	299.8	303.7	316.6	337.6	368.9	372.8
35°	2136.6	1917.8	1133.3	447.4	306.7	293.8	296.8	304.1	323.4	352.2	356.0
37.5°	2322.3	1927.2	1092.5	377.0	305.8	291.3	290.8	294.7	316.6	342.7	354.3
40°	2394.8	2013.5	973.7	352.2	302.8	291.3	285.2	287.4	305.4	338.9	347.9
42.5°	2568.5	2042.2	885.8	343.6	302.8	286.1	276.7	280.1	301.1	330.7	344.9
45°	2747.4	2083.0	781.1	341.9	302.4	285.7	267.7	275.4	292.5	317.4	332.9
47.5°	3002.2	2229.7	676.4	336.7	299.0	287.8	265.5	265.1	280.1	301.5	316.1
50°	3417.8	2458.7	595.4	330.3	299.4	286.1	261.2	255.2	265.1	284.0	298.1
52.5°	3996.5	2849.1	563.6	326.9	296.0	279.2	253.9	244.5	250.1	265.1	278.8
55°	4668.2	3376.2	594.9	326.9	289.1	268.5	243.6	232.5	235.5	245.8	259.1
57.5°	5453.2	4031.2	746.4	322.1	280.5	255.7	231.2	218.3	219.2	228.2	240.2
60°	6272.9	4763.0	1085.7	318.3	274.5	241.5	216.6	203.3	202.0	210.6	221.3
62.5°	7093.9	5438.2	1442.5	327.3	272.8	229.5	201.2	187.9	187.4	195.2	204.2
65°	7746.7	5899.7	1531.3	363.7	284.0	215.8	185.3	172.9	172.0	178.4	188.3
67.5°	8067.2	5966.6	1163.3	409.2	307.6	202.9	169.9	158.3	157.4	164.3	172.9
70°	7830.0	5509.4	718.1	413.9	306.3	187.9	154.0	144.1	142.4	149.7	156.1
72.5°	6952.3	4819.2	545.6	366.3	265.1	166.4	138.1	129.5	127.0	133.4	139.4
75°	5580.1	3826.2	437.1	295.5	208.9	140.3	122.2	114.1	111.1	117.1	122.2
77.5°	3250.5	2152.4	319.6	230.8	157.9	114.5	104.2	96.9	93.5	99.9	103.8
80°	1056.9	717.2	200.7	165.6	115.4	89.6	84.5	79.4	75.9	80.2	81.5
82.5°	379.6	266.8	111.1	101.7	76.8	64.3	63.9	60.9	56.6	58.3	58.3
85°	168.1	121.8	66.1	54.5	45.9	34.3	40.3	38.2	33.9	33.0	31.7
87.5°	47.2	40.3	24.0	18.4	15.0	5.6	12.9	11.6	9.4	8.6	6.0
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)