

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: P367682

Luminaire Tested: **MSA-SA3A-730-U-SL2**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367682
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-SA3A-730-U-SL2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) 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: 10612 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G3

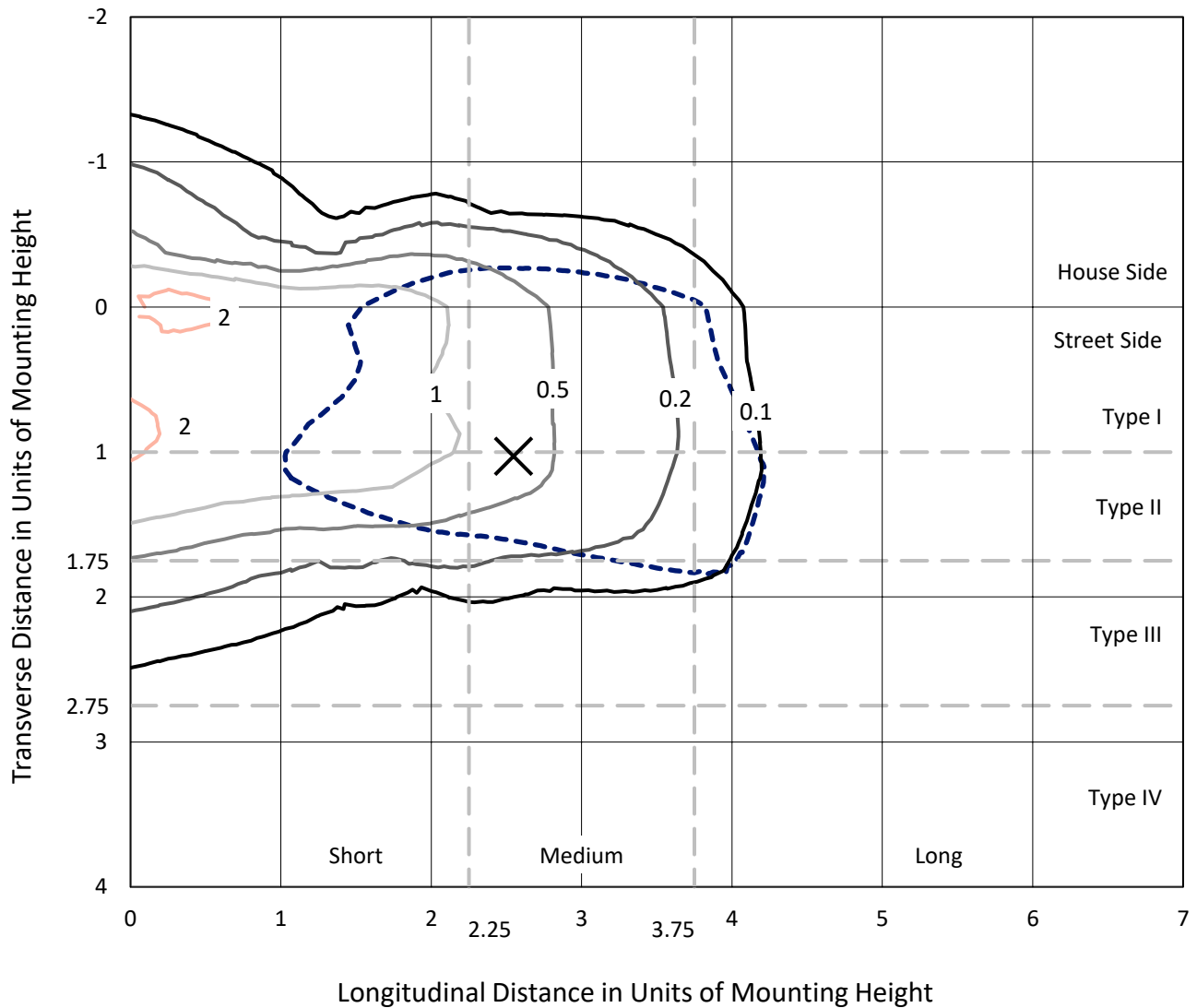
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P367682
 CATALOG NUMBER: MSA-SA3A-730-U-SL2

Iso-Footcandle Lines of Horizontal Illumination

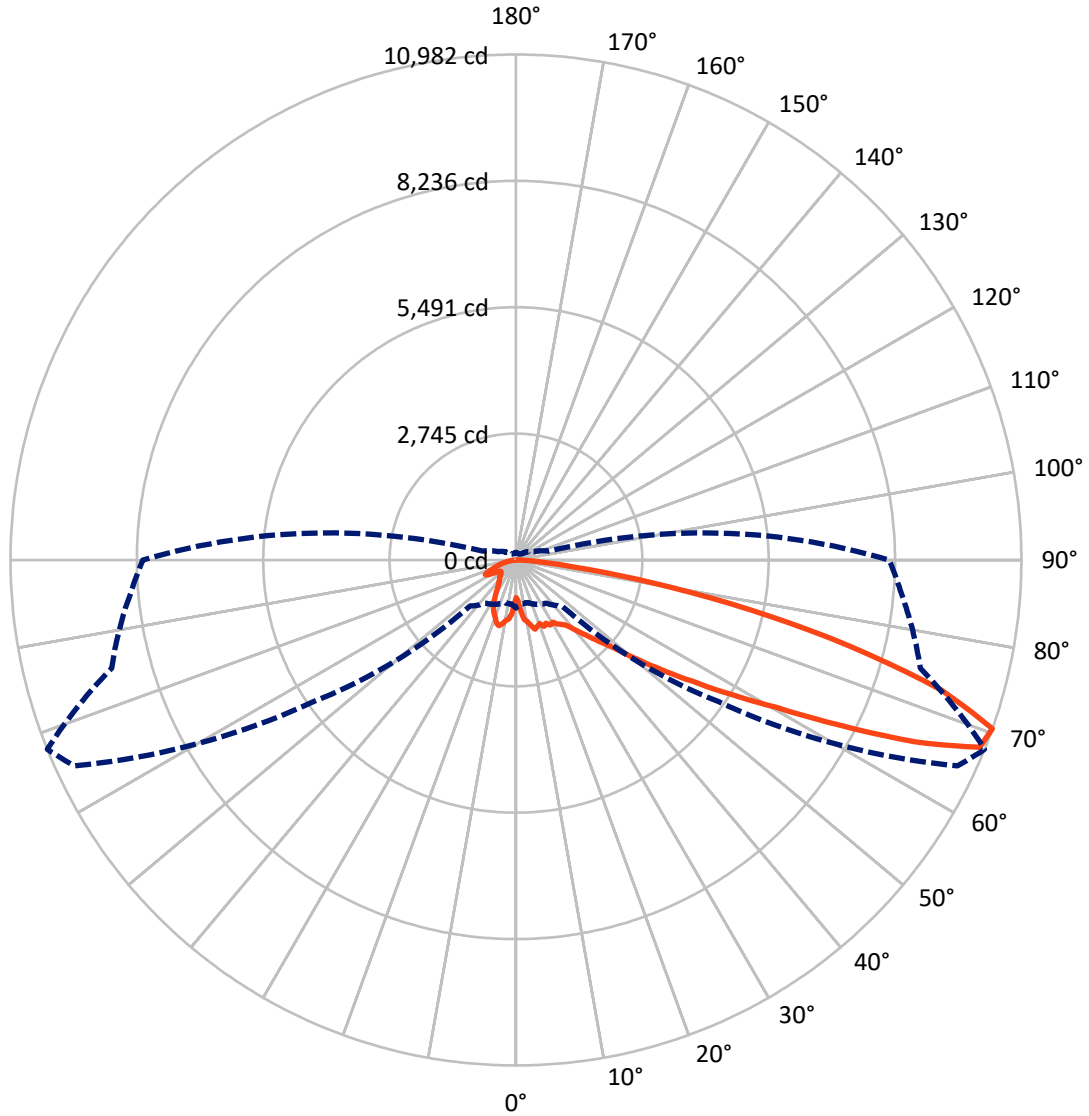
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc
 Type III - Medium - N/A

REPORT NUMBER: P367682
CATALOG NUMBER: MSA-SA3A-730-U-SL2

Luminous Intensity Polar Plot



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

REPORT NUMBER: P367682

CATALOG NUMBER: MSA-SA3A-730-U-SL2

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2026.1	0.0	2026.1
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	8585.9	0.0	8585.9
	% Fixture	80.9	0.0	80.9
Total	Lumens	10612.0	0.0	10612.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.7	1.0
10°-20°	354.2	3.3
20°-30°	538.8	5.1
30°-40°	823.0	7.8
40°-50°	1415.0	13.3
50°-60°	2342.2	22.1
60°-70°	2887.6	27.2
70°-80°	1854.9	17.5
80°-90°	287.7	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°	10612.0	100.0
0°-180°	10612.0	100.0

Coefficient of Utilization



REPORT NUMBER: P367682

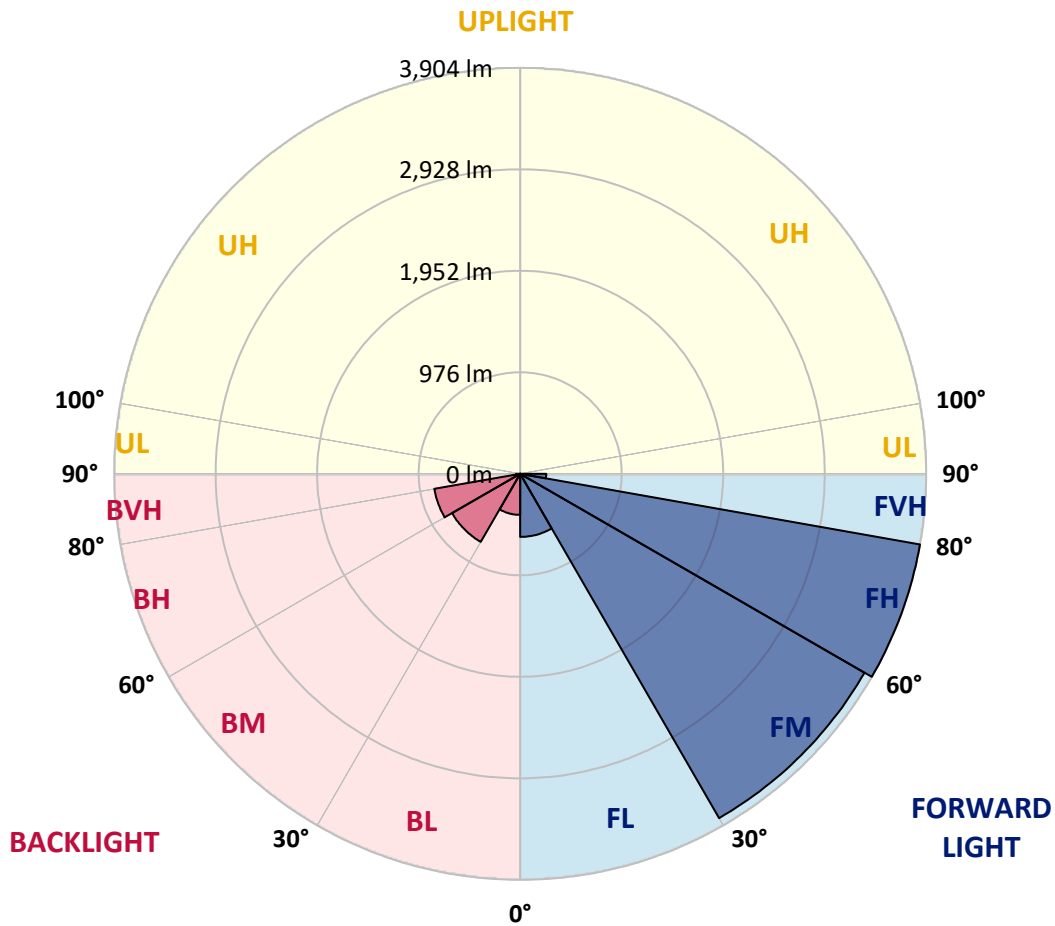
CATALOG NUMBER: MSA-SA3A-730-U-SL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	606.8	5.7			
FM (30°-60°)	3823.9	36.0			
FH (60°-80°)	3904.4	36.8			G2/5000
FVH (80°-90°)	250.8	2.4			G3/500
BL (0°-30°)	394.8	3.7	B1/500		
BM (30°-60°)	756.3	7.1	B1/1000		
BH (60°-80°)	838.1	7.9	B2/1000		G2/1000
BVH (80°-90°)	36.9	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





REPORT NUMBER: P367682

CATALOG NUMBER: MSA-SA3A-730-U-SL2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	813.7	813.7	813.7	813.7	813.7	813.7	813.7	813.7	813.7	813.7	813.7
2.5°	934.9	897.2	859.0	877.6	907.4	933.6	928.2	931.4	895.4	890.5	985.1
5°	1101.5	1036.6	1035.3	1036.2	1038.8	1008.6	1082.4	1120.6	1129.0	1168.1	1260.9
7.5°	1159.2	1133.0	1106.3	1119.7	1085.9	1089.0	1179.6	1279.1	1302.7	1331.1	1458.1
10°	1147.2	1122.3	1130.3	1132.6	1138.8	1189.0	1247.1	1342.6	1362.6	1453.2	1486.1
12.5°	1149.0	1144.5	1181.8	1183.2	1249.8	1340.0	1363.1	1451.0	1459.0	1525.6	1662.9
15°	1209.8	1240.5	1219.6	1230.7	1243.6	1351.5	1384.8	1511.0	1558.9	1644.6	1747.7
17.5°	1328.4	1337.3	1274.7	1258.2	1300.4	1333.3	1409.2	1463.9	1514.1	1753.5	1895.6
20°	1356.0	1379.9	1305.3	1220.5	1309.8	1355.5	1408.4	1433.2	1472.3	1769.4	1971.1
22.5°	1474.1	1424.3	1334.2	1260.5	1289.8	1334.2	1372.4	1466.1	1568.7	1723.7	2046.6
25°	1541.2	1512.3	1431.9	1352.8	1328.0	1329.3	1403.0	1487.0	1522.5	1790.8	2061.7
27.5°	1703.3	1657.1	1476.3	1461.2	1367.5	1294.7	1407.9	1538.5	1600.7	1738.4	2135.4
30°	1906.2	1871.2	1634.0	1614.0	1471.0	1344.0	1470.1	1576.7	1567.8	1772.6	2186.5
32.5°	2070.6	2129.2	1889.8	1732.1	1630.4	1508.7	1450.6	1570.0	1658.4	1852.1	2273.1
35°	2305.1	2360.1	2089.2	1982.6	1761.9	1585.1	1586.9	1661.5	1716.1	1944.9	2369.9
37.5°	2711.0	2662.6	2444.5	2276.2	2135.0	1871.2	1792.1	1765.9	1809.9	2058.6	2559.6
40°	3003.7	2962.8	2706.1	2610.2	2335.3	2182.0	1965.3	1940.4	2018.2	2175.8	2714.6
42.5°	3350.6	3277.7	3038.8	2959.7	2672.4	2396.1	2177.6	2191.8	2229.6	2397.0	2924.2
45°	3703.7	3526.9	3391.4	3385.2	3193.3	2811.8	2518.3	2506.7	2508.0	2722.6	3159.6
47.5°	3983.9	3824.9	3669.9	3596.2	3499.4	3530.9	3013.0	2877.6	2836.7	3050.3	3512.7
50°	4173.6	3990.6	3815.1	3797.8	4056.3	4226.4	3477.6	3332.8	3358.1	3519.3	3983.5
52.5°	4177.6	3960.4	3777.4	3898.6	4507.6	4750.9	4277.9	3873.3	3954.2	4063.9	4597.7
55°	3887.1	3661.9	3542.9	3819.1	4683.9	5373.2	5402.5	4739.4	4646.1	4686.5	5331.9
57.5°	3274.6	3047.2	2977.9	3308.8	4349.4	5973.2	6760.7	5774.2	5500.6	5331.9	6084.2
60°	2465.0	2268.2	2225.1	2436.1	3606.0	5796.9	7860.3	7062.2	6504.8	6052.7	6838.8
62.5°	1848.5	1707.3	1642.4	1672.6	2495.2	5223.5	8582.5	8689.5	7900.3	6839.7	7576.1
65°	1502.1	1387.9	1330.2	1291.1	1551.8	4039.0	8451.9	10059.3	9530.3	7666.3	8149.9
67.5°	1254.7	1153.4	1126.8	1165.0	1226.7	2343.3	7430.4	10825.4	10861.4	8481.7	8485.2
70°	1041.5	966.4	956.7	1065.0	1146.3	1414.1	5367.0	10584.7	10981.7	9093.3	8406.6
72.5°	804.8	764.4	763.0	933.1	1138.8	1205.4	3196.0	9143.9	9677.3	8897.8	7637.4
75°	558.3	530.3	551.6	767.0	1112.6	1222.7	1824.1	7122.2	7521.5	7571.7	6118.0
77.5°	384.2	360.6	383.7	554.7	993.5	1252.0	1276.0	5149.8	5194.2	5077.4	3504.2
80°	267.4	250.9	268.7	392.6	773.2	1239.1	1086.4	3242.2	2974.8	2266.0	1121.9
82.5°	165.7	160.8	180.3	279.8	544.5	1127.2	1029.5	1673.1	1277.3	625.3	400.6
85°	87.1	79.9	104.8	182.5	340.7	884.7	964.7	763.5	493.0	222.1	160.8
87.5°	25.8	23.1	40.4	73.7	144.3	396.6	552.1	323.8	183.9	65.3	50.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P367682
 CATALOG NUMBER: MSA-SA3A-730-U-SL2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	813.7	813.7	813.7	813.7	813.7	813.7	813.7	813.7	813.7	813.7	813.7
2.5°	991.8	986.9	921.1	929.6	943.8	947.3	946.9	922.9	897.6	968.2	966.0
5°	1263.1	1219.2	1186.3	1179.2	1138.8	1098.4	1112.6	1107.7	1101.5	1133.4	1137.4
7.5°	1458.5	1397.7	1359.5	1261.4	1168.1	1087.2	1113.0	1121.0	1105.0	1162.8	1180.1
10°	1510.1	1462.1	1420.8	1294.7	1243.1	1196.1	1126.3	1046.8	1036.2	1002.9	1006.9
12.5°	1642.9	1636.2	1495.4	1384.4	1317.3	1223.6	1073.0	976.7	894.0	898.0	874.1
15°	1747.7	1751.2	1582.0	1426.6	1246.7	1103.7	926.5	806.6	721.7	704.8	687.5
17.5°	1888.5	1881.4	1589.1	1375.9	1148.1	938.5	721.3	602.3	588.0	597.8	582.7
20°	1949.8	1887.1	1543.8	1250.2	994.0	712.8	545.0	481.9	509.4	548.5	549.4
22.5°	2004.8	1897.8	1520.3	1149.0	788.8	518.3	437.5	425.9	458.3	511.2	515.6
25°	2002.6	1947.1	1478.1	1046.8	611.6	404.6	380.2	388.6	427.3	482.3	485.4
27.5°	2103.4	1909.3	1368.4	912.7	460.6	346.4	352.6	368.2	386.4	438.8	449.0
30°	2102.5	1979.5	1313.3	749.7	370.0	317.6	333.5	346.9	362.0	409.9	415.7
32.5°	2152.3	1933.8	1280.0	583.2	331.8	310.5	314.4	327.8	349.5	382.0	386.0
35°	2212.2	1985.7	1173.4	463.2	317.6	304.2	307.3	314.9	334.9	364.6	368.6
37.5°	2404.6	1995.5	1131.2	390.4	316.7	301.6	301.1	305.1	327.8	354.9	366.9
40°	2479.6	2084.8	1008.2	364.6	313.6	301.6	295.4	297.6	316.2	350.9	360.2
42.5°	2659.5	2114.5	917.1	355.8	313.6	296.2	286.5	290.0	311.8	342.4	357.1
45°	2844.7	2156.7	808.8	354.0	313.1	295.8	277.1	285.1	302.9	328.7	344.7
47.5°	3108.5	2308.6	700.4	348.6	309.6	298.0	274.9	274.5	290.0	312.2	327.3
50°	3538.9	2545.8	616.5	342.0	310.0	296.2	270.5	264.3	274.5	294.0	308.7
52.5°	4138.0	2950.0	583.6	338.4	306.5	289.1	262.9	253.2	258.9	274.5	288.7
55°	4833.5	3495.8	616.0	338.4	299.3	278.0	252.3	240.7	243.8	254.5	268.3
57.5°	5646.3	4174.0	772.8	333.5	290.5	264.7	239.4	226.1	227.0	236.3	248.7
60°	6495.1	4931.7	1124.1	329.5	284.2	250.0	224.3	210.5	209.2	218.1	229.2
62.5°	7345.1	5630.8	1493.6	338.9	282.5	237.6	208.3	194.5	194.1	202.1	211.4
65°	8021.1	6108.7	1585.6	376.6	294.0	223.4	191.9	179.0	178.1	184.8	195.0
67.5°	8352.9	6178.0	1204.5	423.7	318.4	210.1	175.9	163.9	163.0	170.1	179.0
70°	8107.3	5704.5	743.5	428.6	317.1	194.5	159.4	149.2	147.5	155.0	161.7
72.5°	7198.6	4989.9	564.9	379.3	274.5	172.3	143.0	134.1	131.5	138.1	144.3
75°	5777.8	3961.7	452.6	306.0	216.3	145.2	126.6	118.1	115.0	121.2	126.6
77.5°	3365.7	2228.7	330.9	238.9	163.4	118.6	107.9	100.4	96.8	103.5	107.5
80°	1094.4	742.6	207.9	171.4	119.5	92.8	87.5	82.2	78.6	83.1	84.4
82.5°	393.1	276.3	115.0	105.3	79.5	66.6	66.2	63.1	58.6	60.4	60.4
85°	174.1	126.1	68.4	56.4	47.5	35.5	41.7	39.5	35.1	34.2	32.9
87.5°	48.9	41.7	24.9	19.1	15.5	5.8	13.3	12.0	9.8	8.9	6.2
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)