

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: P367288

Luminaire Tested: **MSA-SA2B-730-U-SL3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367288
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-18)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2B-730-U-SL3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8901 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

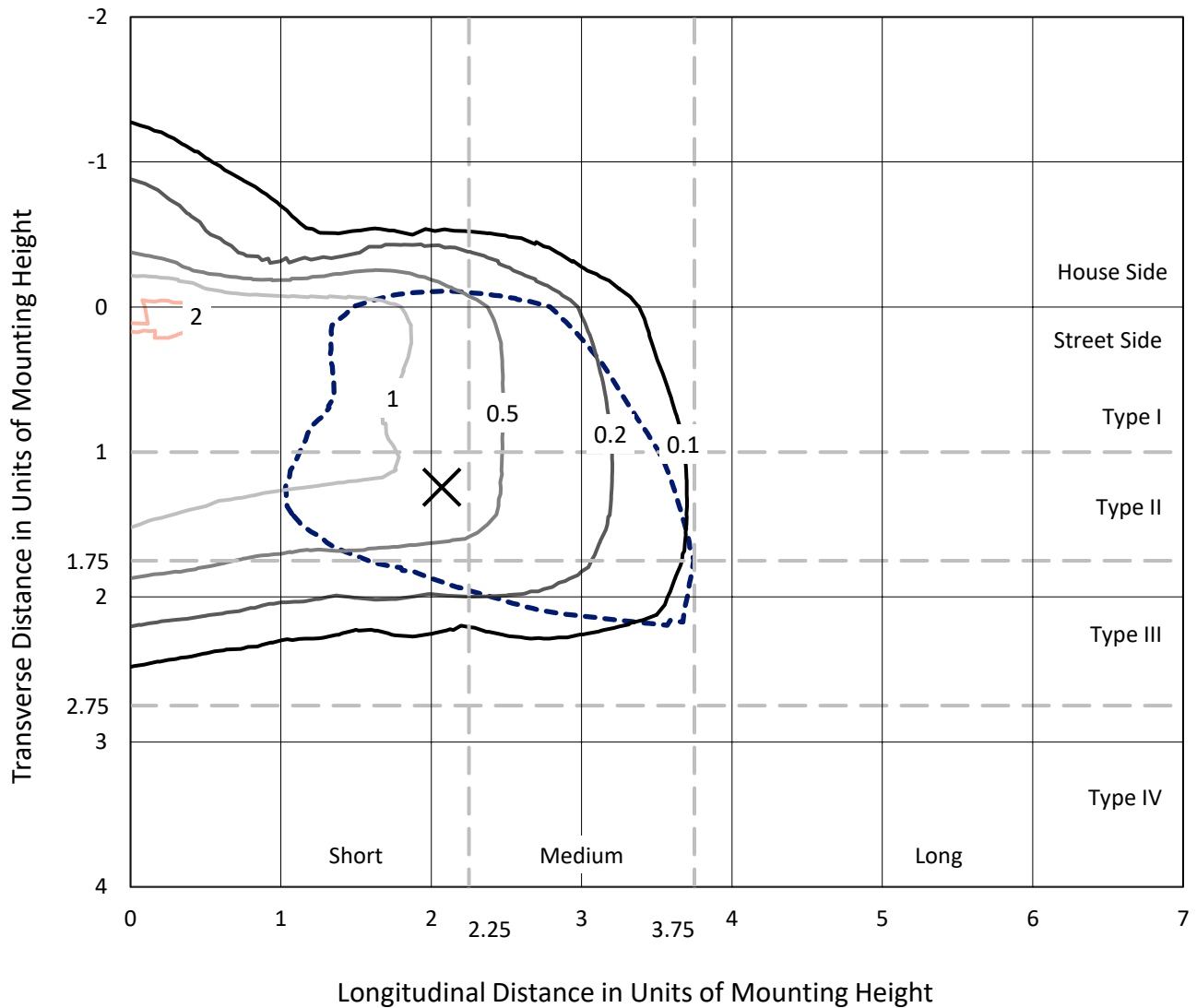
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

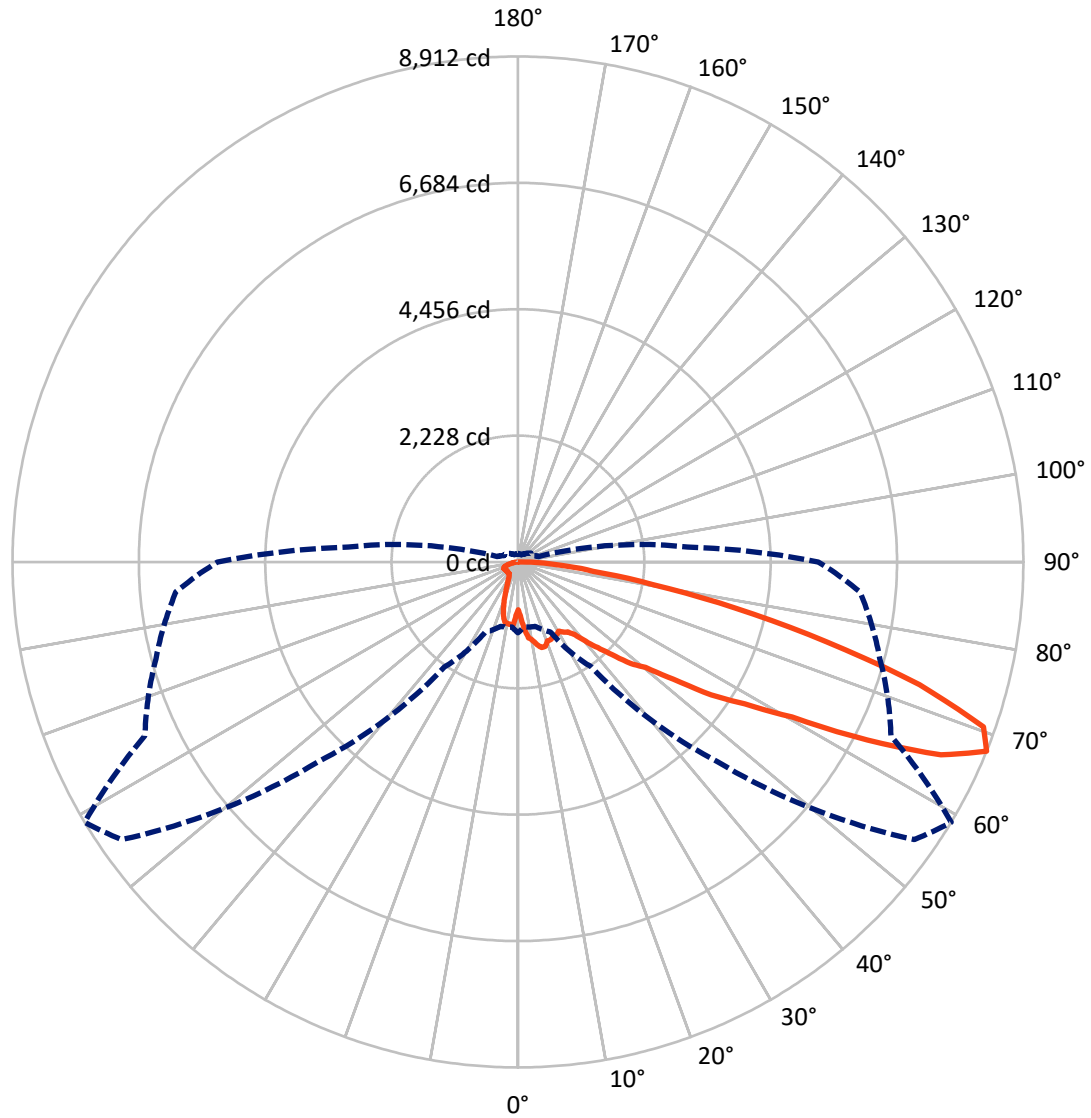
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1339.8	0.0	1339.8
	% Fixture	15.1	0.0	15.1
Street Side	Lumens	7561.2	0.0	7561.2
	% Fixture	84.9	0.0	84.9
Total	Lumens	8901.0	0.0	8901.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.0	1.2
10°-20°	325.5	3.7
20°-30°	464.9	5.2
30°-40°	685.0	7.7
40°-50°	1157.4	13.0
50°-60°	2014.1	22.6
60°-70°	2566.5	28.8
70°-80°	1359.0	15.3
80°-90°	218.6	2.5
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°	8901.0	100.0
0°-180°	8901.0	100.0

Coefficient of Utilization



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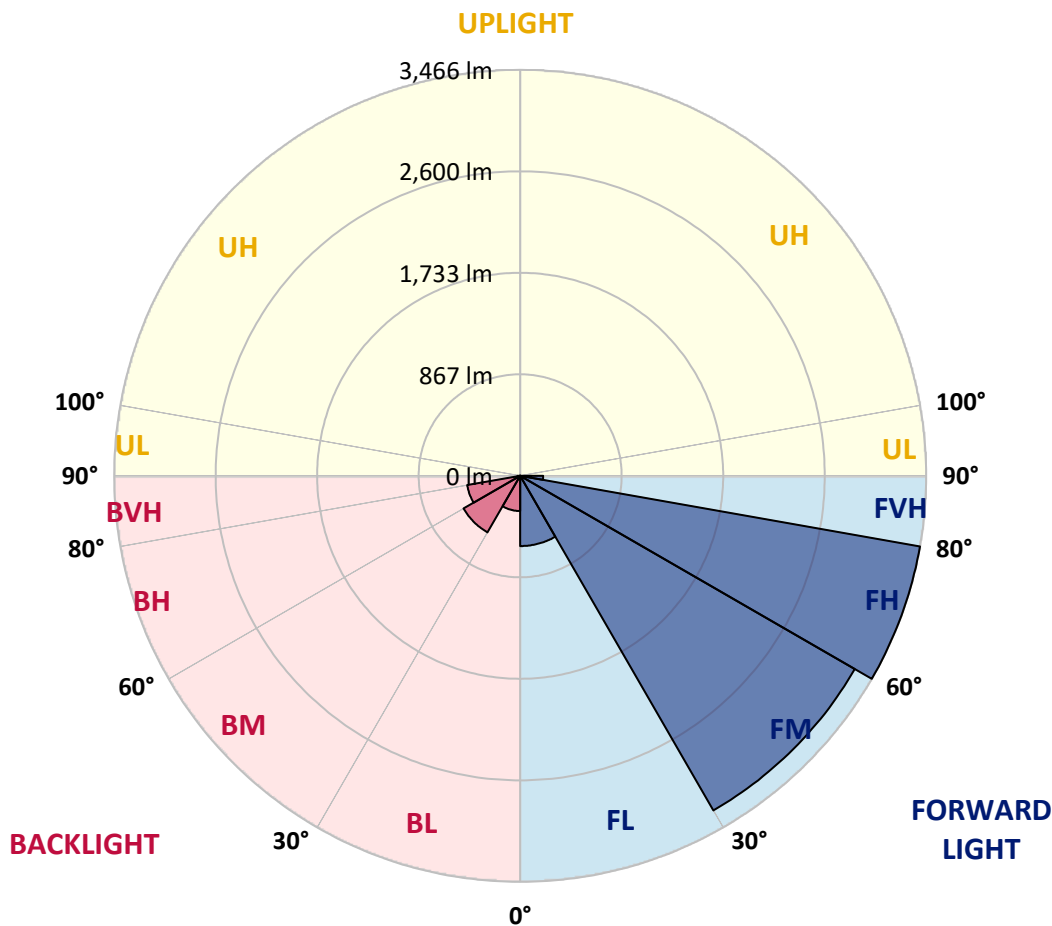
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	599.9	6.7			
FM (30°-60°)	3298.6	37.1			
FH (60°-80°)	3466.3	38.9			G2/5000
FVH (80°-90°)	196.4	2.2			G2/225
BL (0°-30°)	300.5	3.4	B1/500		
BM (30°-60°)	557.9	6.3	B1/1000		
BH (60°-80°)	459.2	5.2	B1/500		G1/500
BVH (80°-90°)	22.3	0.3			G1/100
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°	59°	65°	75°	85°
0°	842.3	842.3	842.3	842.3	842.3	842.3	842.3	842.3	842.3	842.3	842.3
2.5°	1051.6	1002.6	950.5	965.2	995.0	1008.6	993.9	979.6	961.1	939.2	1013.9
5°	1275.3	1202.5	1191.9	1191.5	1181.0	1138.7	1193.1	1189.3	1211.2	1233.8	1291.9
7.5°	1339.0	1311.9	1282.5	1296.4	1243.2	1241.0	1325.5	1349.6	1391.8	1377.9	1456.0
10°	1306.2	1275.7	1291.1	1285.5	1290.4	1346.2	1397.9	1399.4	1444.6	1489.2	1439.0
12.5°	1248.5	1250.8	1312.3	1310.0	1389.2	1492.9	1508.4	1496.3	1570.2	1540.1	1583.1
15°	1289.6	1317.2	1301.7	1314.9	1346.2	1478.2	1521.2	1565.0	1635.1	1662.3	1619.3
17.5°	1355.3	1370.0	1300.6	1293.4	1357.9	1420.5	1527.2	1564.6	1575.5	1769.0	1708.3
20°	1327.3	1357.1	1289.2	1202.1	1309.2	1392.2	1497.5	1486.1	1539.3	1777.3	1726.8
22.5°	1406.5	1357.1	1270.8	1208.9	1246.6	1322.8	1412.2	1486.5	1549.5	1728.7	1753.6
25°	1421.6	1398.2	1317.5	1256.0	1243.2	1270.4	1397.9	1446.5	1552.9	1795.1	1739.2
27.5°	1513.7	1478.6	1314.1	1316.0	1252.3	1204.4	1352.6	1454.8	1591.4	1753.9	1774.3
30°	1628.0	1601.2	1394.9	1402.4	1314.1	1225.9	1383.5	1414.5	1613.6	1818.1	1818.4
32.5°	1713.6	1760.7	1553.7	1451.1	1419.7	1353.7	1336.0	1475.2	1587.6	1934.2	1893.9
35°	1867.9	1904.4	1675.9	1593.6	1487.6	1413.3	1465.0	1515.2	1695.9	2087.0	2005.9
37.5°	2153.4	2111.1	1902.9	1773.6	1734.0	1626.8	1655.5	1620.4	1813.5	2258.6	2225.4
40°	2318.6	2282.0	2062.9	1991.2	1834.3	1847.9	1812.0	1837.7	1970.8	2441.2	2430.6
42.5°	2481.5	2432.5	2247.3	2197.5	2041.0	1974.6	1981.0	2064.0	2213.4	2736.1	2701.1
45°	2642.6	2517.0	2435.9	2449.1	2373.7	2237.5	2246.9	2325.0	2478.2	3073.4	2992.6
47.5°	2765.9	2662.2	2598.9	2582.6	2545.3	2727.5	2646.0	2677.7	2745.2	3373.6	3343.1
50°	2999.4	2878.4	2795.7	2772.4	2899.1	3152.6	2986.6	2918.3	3062.0	3761.7	3745.9
52.5°	3373.2	3222.3	3084.7	3083.2	3266.5	3430.9	3547.9	3430.2	3483.0	4159.3	4204.6
55°	3699.5	3524.9	3401.1	3469.4	3730.4	3831.1	4228.3	4136.3	4091.8	4560.6	4690.0
57.5°	3821.3	3617.3	3536.6	3637.3	4022.0	4539.5	4959.3	4717.2	4673.8	5014.8	5286.0
60°	3553.9	3338.1	3343.1	3532.8	4199.3	5059.7	5758.6	5553.0	5298.8	5580.2	5845.0
62.5°	2792.0	2597.0	2724.1	3012.6	4050.7	5565.1	6829.8	6916.6	6012.8	6049.0	6155.0
65°	1897.7	1762.6	1877.3	2159.8	3285.3	5840.8	7850.1	8197.9	6663.1	6356.1	6288.9
67.5°	1248.9	1153.5	1175.7	1363.5	2261.6	4979.3	8532.5	8911.5	7257.5	6608.0	6052.8
70°	967.1	890.2	880.4	978.8	1341.3	3459.2	8128.1	8704.5	7619.7	6371.9	5275.8
72.5°	758.9	700.4	705.7	800.4	1038.8	1919.2	6289.7	7402.0	7074.2	5495.3	4053.3
75°	591.8	543.9	570.7	678.9	960.7	1192.7	4339.6	5617.9	5469.3	4069.1	2311.8
77.5°	429.6	398.7	436.8	578.2	903.0	1023.3	2701.4	3919.4	3503.7	2089.3	793.2
80°	281.8	264.4	295.7	471.5	818.9	984.8	1669.5	2401.6	1731.3	586.9	300.2
82.5°	166.0	158.4	184.4	319.1	658.2	923.0	1113.5	1334.5	708.4	248.2	159.6
85°	87.1	81.5	109.4	183.3	453.8	842.6	876.6	798.9	342.1	107.9	76.2
87.5°	29.0	28.3	46.4	70.9	171.6	447.3	467.7	379.5	141.1	31.3	16.6
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°	842.3	842.3	842.3	842.3	842.3	842.3	842.3	842.3	842.3	842.3	842.3
2.5°	1024.1	1009.0	922.2	934.3	945.6	940.0	936.6	897.3	893.6	949.4	944.9
5°	1290.4	1227.8	1153.8	1150.4	1101.8	1052.0	1061.8	1046.0	1050.5	1073.5	1075.8
7.5°	1431.1	1353.0	1282.5	1167.8	1070.5	991.6	1004.1	1000.3	990.1	1042.2	1056.1
10°	1428.4	1359.0	1279.4	1140.6	1075.0	1010.9	933.9	861.1	839.6	814.0	816.2
12.5°	1522.7	1461.2	1287.7	1146.3	1057.3	946.8	802.7	723.1	646.9	645.4	626.1
15°	1552.1	1506.9	1305.5	1113.8	933.2	774.8	625.8	539.4	484.3	473.4	457.2
17.5°	1626.5	1555.5	1251.5	1009.0	789.1	605.8	470.4	410.0	405.5	413.0	404.7
20°	1631.4	1516.3	1154.2	854.0	634.1	459.0	383.6	353.4	369.6	388.1	387.4
22.5°	1627.2	1466.9	1070.1	721.9	476.4	368.9	336.1	329.3	344.4	371.9	375.3
25°	1585.0	1450.7	964.9	592.9	386.6	316.1	307.0	311.2	330.0	362.5	362.5
27.5°	1629.1	1384.7	832.8	482.4	325.1	281.4	287.8	298.4	312.3	349.3	356.1
30°	1614.8	1406.5	726.5	388.5	286.7	257.2	271.6	282.1	298.0	336.5	339.8
32.5°	1653.2	1348.1	637.1	326.6	261.4	247.8	251.2	265.5	286.3	316.5	322.5
35°	1712.1	1369.6	534.5	293.8	248.9	236.9	243.3	254.6	275.4	304.8	309.7
37.5°	1899.9	1368.5	463.6	275.7	246.7	234.6	237.6	245.6	269.7	296.5	307.8
40°	2020.6	1446.9	399.1	271.6	244.0	233.5	230.8	239.5	258.8	290.4	298.4
42.5°	2247.3	1494.8	371.2	270.1	243.7	227.1	224.4	234.6	253.5	282.9	295.0
45°	2486.8	1563.1	348.9	269.3	242.5	225.9	218.0	230.8	246.7	275.0	288.9
47.5°	2768.6	1707.5	336.5	266.7	240.3	227.4	215.8	222.2	239.9	268.2	282.1
50°	3137.5	1898.8	339.1	262.9	243.7	227.8	212.4	215.4	231.6	259.1	273.5
52.5°	3586.0	2194.9	356.1	264.4	245.9	225.9	210.9	209.3	223.3	247.4	261.8
55°	4126.5	2615.1	407.0	271.6	245.9	225.6	208.6	201.8	212.4	232.0	245.9
57.5°	4778.6	3101.6	506.6	275.0	244.0	223.3	203.7	191.6	198.0	214.2	227.4
60°	5338.8	3494.3	609.2	277.2	247.8	218.0	193.9	178.8	182.9	195.4	207.1
62.5°	5624.3	3604.4	640.1	275.4	258.0	214.6	182.2	165.2	165.6	176.1	186.7
65°	5677.9	3457.7	516.0	273.5	271.2	214.2	173.9	153.5	150.9	158.4	167.5
67.5°	5296.1	3001.3	372.3	269.3	272.7	212.0	168.2	144.1	137.3	142.6	150.1
70°	4496.9	2417.0	312.7	261.0	254.6	200.7	158.4	134.3	125.2	129.0	134.7
72.5°	3352.5	1788.3	272.7	243.3	221.8	171.6	143.3	123.3	113.9	116.6	120.7
75°	1862.6	953.9	228.2	211.6	181.1	138.8	122.2	109.4	101.1	102.2	106.7
77.5°	618.6	351.9	167.5	167.9	136.9	107.1	100.7	93.5	87.1	87.5	91.3
80°	280.3	194.6	119.9	120.7	95.4	77.7	77.3	75.1	70.9	69.8	72.4
82.5°	162.6	118.1	82.2	78.5	61.5	50.5	56.2	55.1	53.9	49.8	50.5
85°	80.0	63.4	43.0	40.7	33.9	25.3	30.2	31.3	30.2	25.6	25.3
87.5°	19.6	20.7	10.6	9.8	5.7	2.6	4.5	4.5	5.7	3.8	1.9
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)