

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: P367287

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

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367287
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
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-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7449 lumens
Efficiency: N/A
Efficacy: 87.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

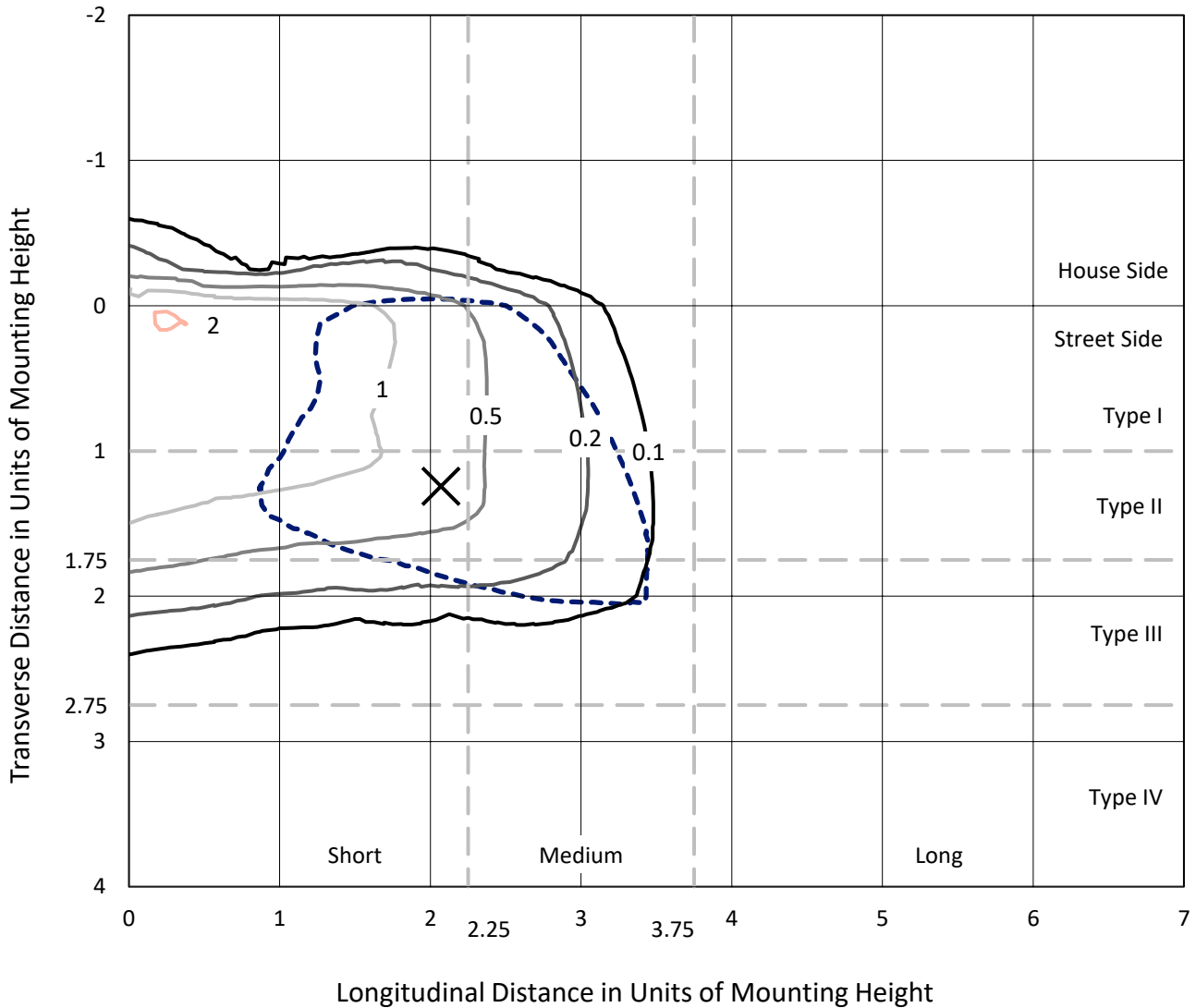
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

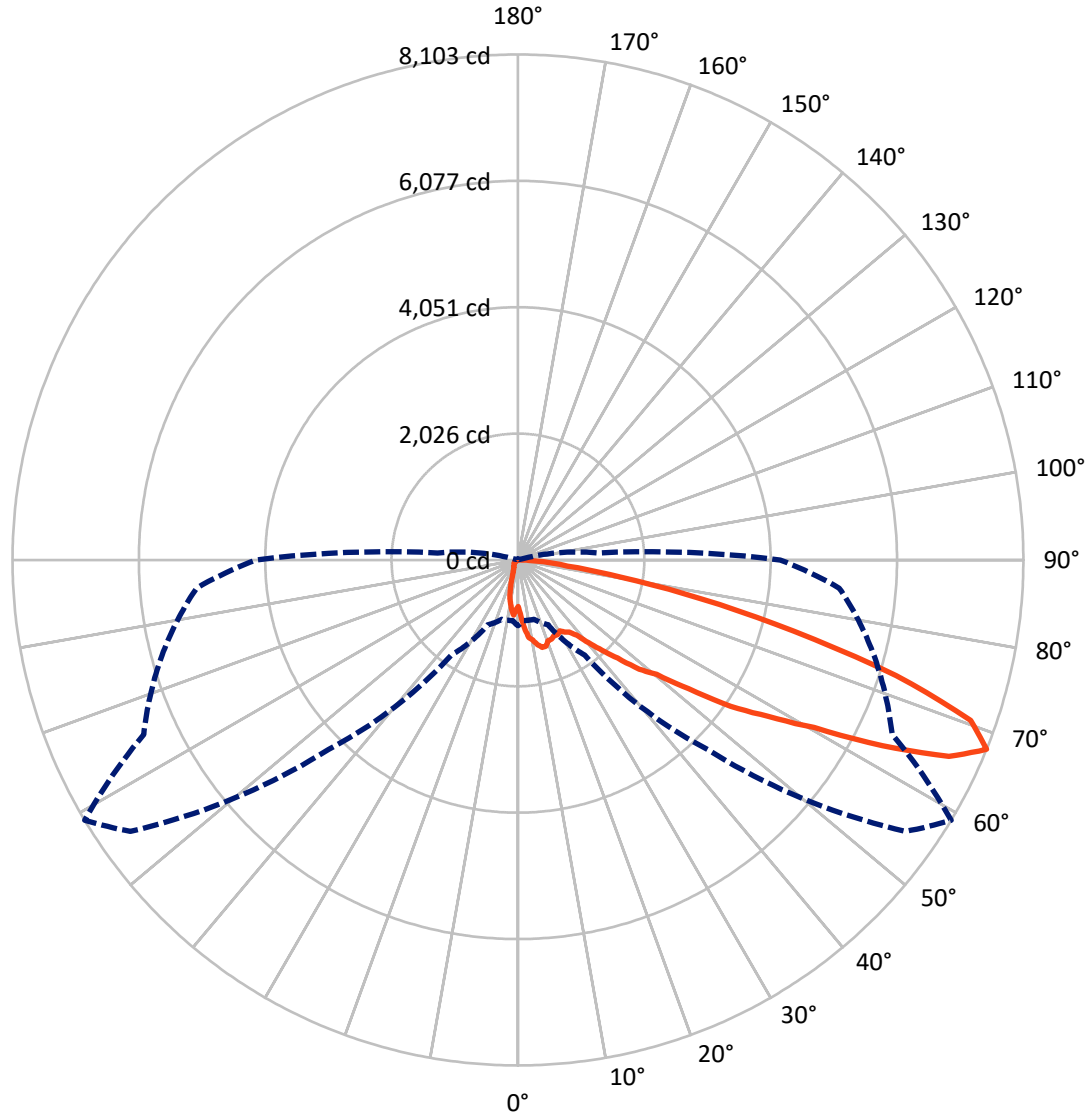
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 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	633.5	0.0	633.5
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	6815.5	0.0	6815.5
	% Fixture	91.5	0.0	91.5
Total	Lumens	7449.0	0.0	7449.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.6	1.2
10°-20°	255.2	3.4
20°-30°	379.5	5.1
30°-40°	585.5	7.9
40°-50°	1045.0	14.0
50°-60°	1859.6	25.0
60°-70°	2165.8	29.1
70°-80°	963.2	12.9
80°-90°	104.6	1.4
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°	7449.0	100.0
0°-180°	7449.0	100.0

Coefficient of Utilization



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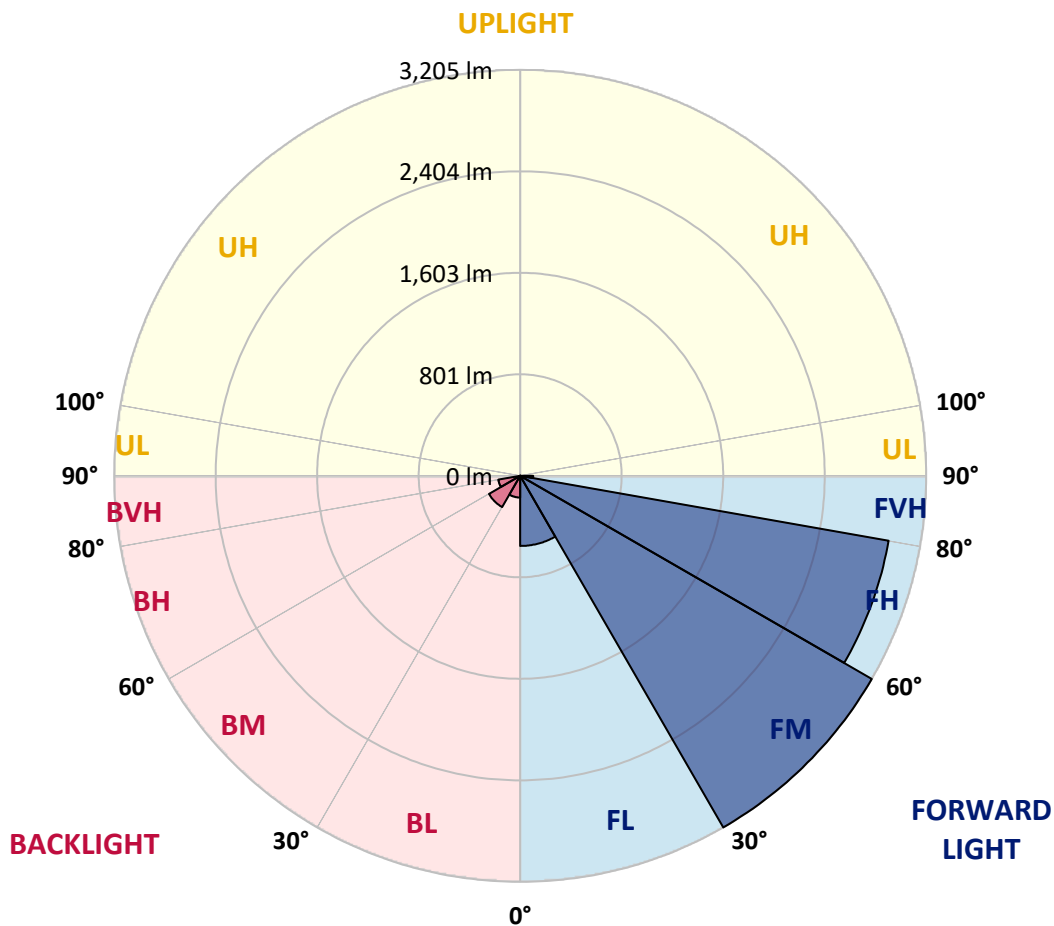
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	554.0	7.4			
FM (30°-60°)	3205.3	43.0			
FH (60°-80°)	2953.5	39.6			G2/5000
FVH (80°-90°)	102.7	1.4			G2/225
BL (0°-30°)	171.3	2.3	B1/500		
BM (30°-60°)	284.8	3.8	B1/1000		
BH (60°-80°)	175.5	2.4	B1/500		G1/500
BVH (80°-90°)	1.9	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°	59°	65°	75°	85°
0°	745.3	745.3	745.3	745.3	745.3	745.3	745.3	745.3	745.3	745.3	745.3
2.5°	971.6	935.0	883.0	898.4	912.4	925.6	903.7	891.3	885.2	831.7	898.8
5°	1193.0	1147.4	1123.6	1117.6	1102.5	1068.9	1124.7	1099.8	1108.1	1118.7	1140.6
7.5°	1260.5	1239.8	1205.4	1218.3	1160.9	1156.0	1233.4	1254.9	1283.1	1263.9	1290.3
10°	1225.8	1190.0	1206.2	1201.7	1199.4	1250.0	1304.3	1305.4	1347.6	1368.0	1278.6
12.5°	1157.2	1161.3	1219.4	1214.9	1290.3	1391.4	1403.8	1390.6	1459.7	1424.2	1410.6
15°	1202.8	1236.8	1204.7	1215.6	1242.4	1368.8	1412.9	1453.6	1518.9	1540.0	1448.3
17.5°	1257.9	1261.3	1202.8	1189.2	1256.7	1315.6	1419.7	1453.3	1459.7	1644.9	1533.2
20°	1228.1	1257.1	1187.3	1101.7	1206.6	1286.5	1392.2	1381.6	1424.6	1675.8	1552.4
22.5°	1307.3	1265.8	1176.4	1111.9	1147.4	1220.2	1309.5	1378.6	1443.1	1601.9	1577.3
25°	1314.8	1299.7	1220.2	1162.8	1156.8	1175.3	1299.7	1344.2	1445.3	1668.2	1556.2
27.5°	1399.7	1382.3	1219.4	1225.1	1168.5	1111.5	1252.2	1356.7	1486.4	1627.9	1601.1
30°	1509.1	1510.6	1300.5	1318.2	1237.5	1145.9	1291.1	1319.7	1514.4	1692.4	1634.3
32.5°	1620.0	1665.6	1460.8	1366.9	1341.6	1276.0	1242.8	1375.2	1483.8	1802.5	1717.3
35°	1788.6	1819.5	1592.8	1508.7	1409.5	1334.8	1374.0	1421.6	1593.6	1948.5	1826.3
37.5°	2074.1	2018.3	1829.7	1683.3	1659.6	1549.4	1569.0	1526.4	1705.6	2120.5	2042.0
40°	2234.8	2184.2	1988.1	1916.8	1765.2	1782.1	1720.3	1745.2	1868.1	2299.6	2238.5
42.5°	2402.2	2353.9	2182.0	2131.4	1987.0	1916.8	1888.9	1978.3	2117.5	2598.0	2520.3
45°	2570.4	2447.9	2375.1	2400.3	2335.5	2196.7	2164.2	2243.8	2389.8	2964.6	2817.5
47.5°	2712.3	2608.9	2554.2	2542.5	2517.3	2710.0	2578.0	2613.1	2677.6	3289.0	3187.9
50°	2968.0	2866.1	2780.5	2756.8	2879.7	3153.2	2949.5	2881.6	3010.6	3680.8	3617.1
52.5°	3337.2	3207.5	3071.3	3071.7	3303.7	3453.8	3550.3	3431.2	3455.3	4112.0	4083.7
55°	3634.1	3469.2	3356.5	3445.5	3791.4	3875.5	4244.0	4139.5	4108.2	4511.8	4477.1
57.5°	3674.8	3477.2	3423.6	3579.8	4053.1	4590.2	4986.6	4725.6	4677.7	4846.3	4915.3
60°	3294.6	3084.9	3125.3	3376.5	4138.4	5025.8	5668.6	5455.4	5151.1	5238.2	5285.7
62.5°	2457.3	2289.8	2403.0	2735.6	3809.8	5317.8	6458.0	6556.8	5700.2	5532.4	5522.2
65°	1594.3	1489.5	1563.8	1836.5	2883.1	5284.6	7163.3	7591.8	6132.9	5772.3	5596.5
67.5°	1054.6	975.0	985.6	1147.0	1864.4	4297.9	7585.0	8102.8	6619.4	5908.4	5170.7
70°	786.0	723.4	727.2	814.7	1106.6	2834.5	6997.0	7699.6	6797.1	5436.6	4173.4
72.5°	566.9	525.0	560.1	657.4	881.8	1498.9	5215.2	6341.1	5926.9	4288.1	2811.8
75°	392.6	365.1	422.4	549.9	804.9	930.5	3446.2	4564.6	4154.2	2690.4	1271.1
77.5°	217.6	209.3	291.9	448.1	730.6	762.6	2111.0	2999.3	2304.2	964.4	302.5
80°	95.0	92.0	141.4	336.4	614.0	689.1	1188.5	1663.0	906.3	172.0	97.7
82.5°	40.7	39.2	60.3	202.5	446.2	576.3	732.8	800.4	311.9	53.2	55.4
85°	7.2	7.9	24.1	106.7	271.6	292.7	530.7	473.7	156.9	25.3	39.6
87.5°	0.0	0.0	3.8	20.7	50.9	83.7	230.1	166.0	29.8	8.3	6.8
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°	745.3	745.3	745.3	745.3	745.3	745.3	745.3	745.3	745.3	745.3	745.3
2.5°	908.2	887.1	806.8	796.6	785.7	769.4	763.4	728.7	724.2	768.7	768.7
5°	1130.4	1055.0	978.4	918.0	864.1	789.4	768.3	746.4	728.7	724.2	738.1
7.5°	1247.7	1155.7	1035.3	881.8	757.4	649.1	603.9	572.2	536.7	547.3	552.9
10°	1241.3	1143.6	990.1	792.8	654.8	535.2	420.2	353.0	315.7	297.2	295.0
12.5°	1304.3	1212.2	959.5	721.9	545.8	380.6	264.4	216.5	189.0	189.3	187.1
15°	1340.9	1240.5	924.1	632.1	384.3	244.8	183.3	172.7	169.0	173.1	170.9
17.5°	1405.4	1270.3	843.7	498.2	264.4	184.8	168.6	164.4	169.4	178.0	175.8
20°	1400.4	1218.7	729.5	351.1	195.4	166.3	159.5	153.1	163.3	172.4	170.9
22.5°	1395.9	1168.1	622.0	259.1	163.3	151.6	146.0	143.3	148.6	159.2	161.4
25°	1355.9	1143.2	513.0	194.6	147.9	137.7	135.0	132.8	134.7	143.3	142.9
27.5°	1405.0	1080.2	396.0	163.3	136.9	124.8	122.6	118.8	115.0	122.6	123.7
30°	1394.8	1088.9	310.4	143.7	126.0	109.8	110.5	102.6	95.8	102.6	102.6
32.5°	1431.8	1025.5	248.6	130.5	115.0	103.3	93.9	85.6	80.7	84.9	85.6
35°	1485.7	1028.2	194.6	122.2	105.6	92.0	80.7	72.4	67.9	69.8	70.9
37.5°	1666.4	1010.1	162.6	115.8	102.2	85.2	73.5	62.6	59.6	61.9	63.0
40°	1784.0	1058.4	143.3	112.4	93.5	78.5	63.0	55.1	52.4	53.6	55.4
42.5°	2005.8	1085.1	133.9	108.6	85.6	67.1	53.9	49.4	45.6	47.1	48.7
45°	2243.1	1130.8	126.7	104.5	79.6	58.8	47.5	43.8	38.8	39.2	40.7
47.5°	2534.6	1239.4	118.4	97.3	71.3	53.6	42.2	36.6	32.1	31.7	33.6
50°	2926.1	1384.6	110.9	88.3	66.0	49.0	37.0	29.8	26.0	24.9	26.4
52.5°	3344.0	1572.4	103.0	81.8	59.6	43.0	31.7	24.1	20.7	20.0	21.1
55°	3758.2	1752.7	95.4	77.7	52.8	37.0	26.8	20.0	17.0	16.2	17.0
57.5°	4230.0	1947.7	85.6	69.4	46.4	32.1	22.3	16.6	14.0	13.2	13.6
60°	4585.3	2016.4	77.3	60.3	40.4	28.3	18.9	13.2	11.3	10.6	10.9
62.5°	4753.9	1904.4	69.4	52.4	35.5	24.5	15.8	10.9	9.4	8.7	8.7
65°	4710.2	1656.2	61.5	44.9	30.6	20.4	12.4	9.4	8.3	7.2	6.8
67.5°	4204.7	1296.0	52.4	37.7	25.6	16.6	10.6	9.1	7.5	6.8	5.7
70°	3334.6	938.4	42.6	31.3	21.5	13.6	8.3	8.3	7.2	6.8	5.3
72.5°	2185.7	590.7	34.7	25.3	17.7	10.6	6.4	7.5	6.8	6.8	4.9
75°	947.1	211.2	27.9	20.4	14.7	7.2	5.7	6.8	7.2	6.8	5.7
77.5°	221.8	65.6	21.9	16.2	12.1	4.9	5.7	6.8	7.2	6.4	4.9
80°	83.4	27.9	14.3	10.6	9.4	3.0	4.9	4.1	3.8	2.6	0.8
82.5°	50.5	11.7	7.5	5.3	4.5	0.8	2.3	1.5	0.8	0.8	0.0
85°	35.8	5.7	4.1	3.8	2.3	0.0	0.4	0.0	0.0	0.4	0.0
87.5°	4.9	1.5	1.9	1.9	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)