

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: P596965

Luminaire Tested: **MSA-SA2C-835-U-SL3-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596965
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2C-835-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: 8351 lumens
Efficiency: N/A
Efficacy: 73.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

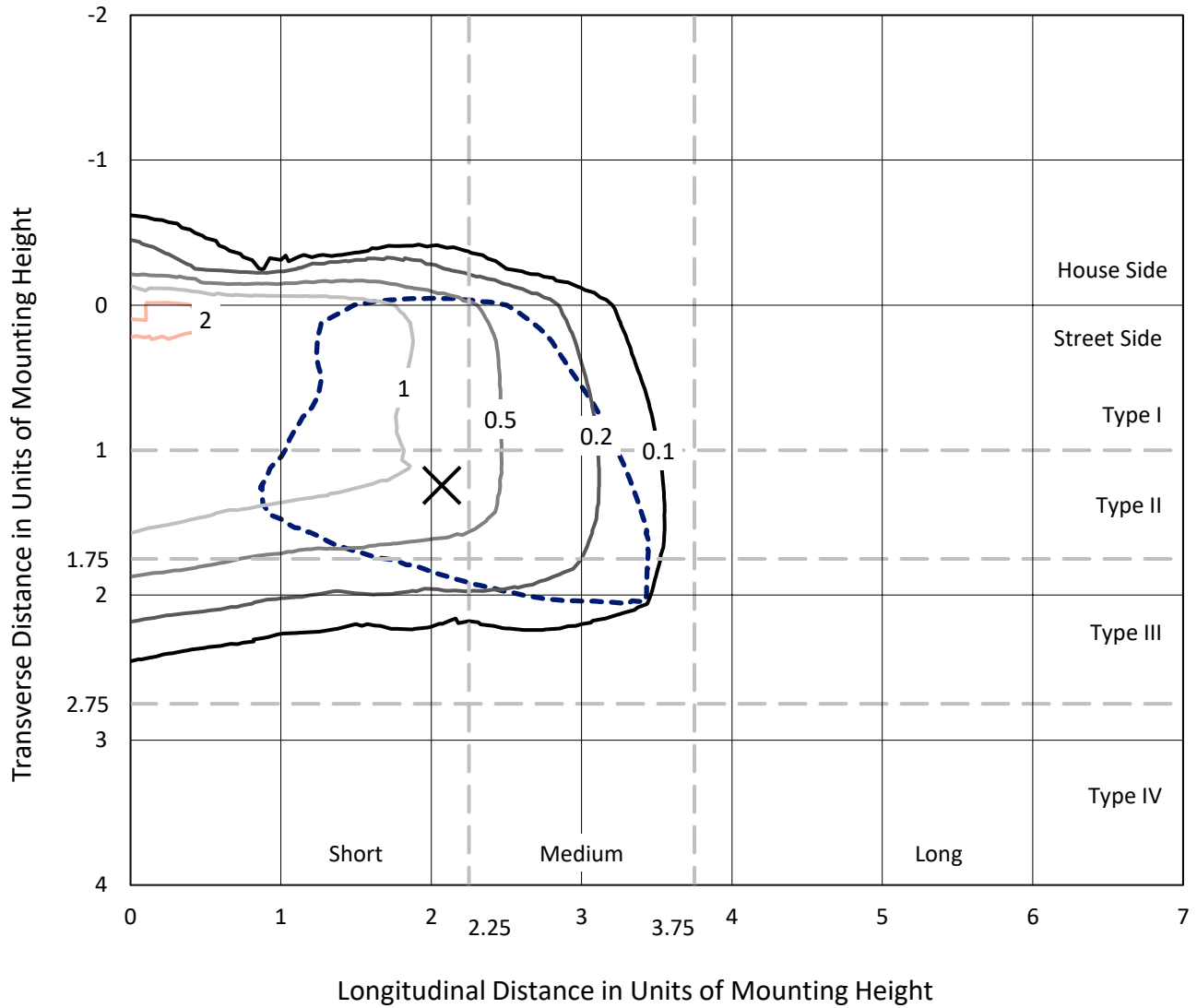
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

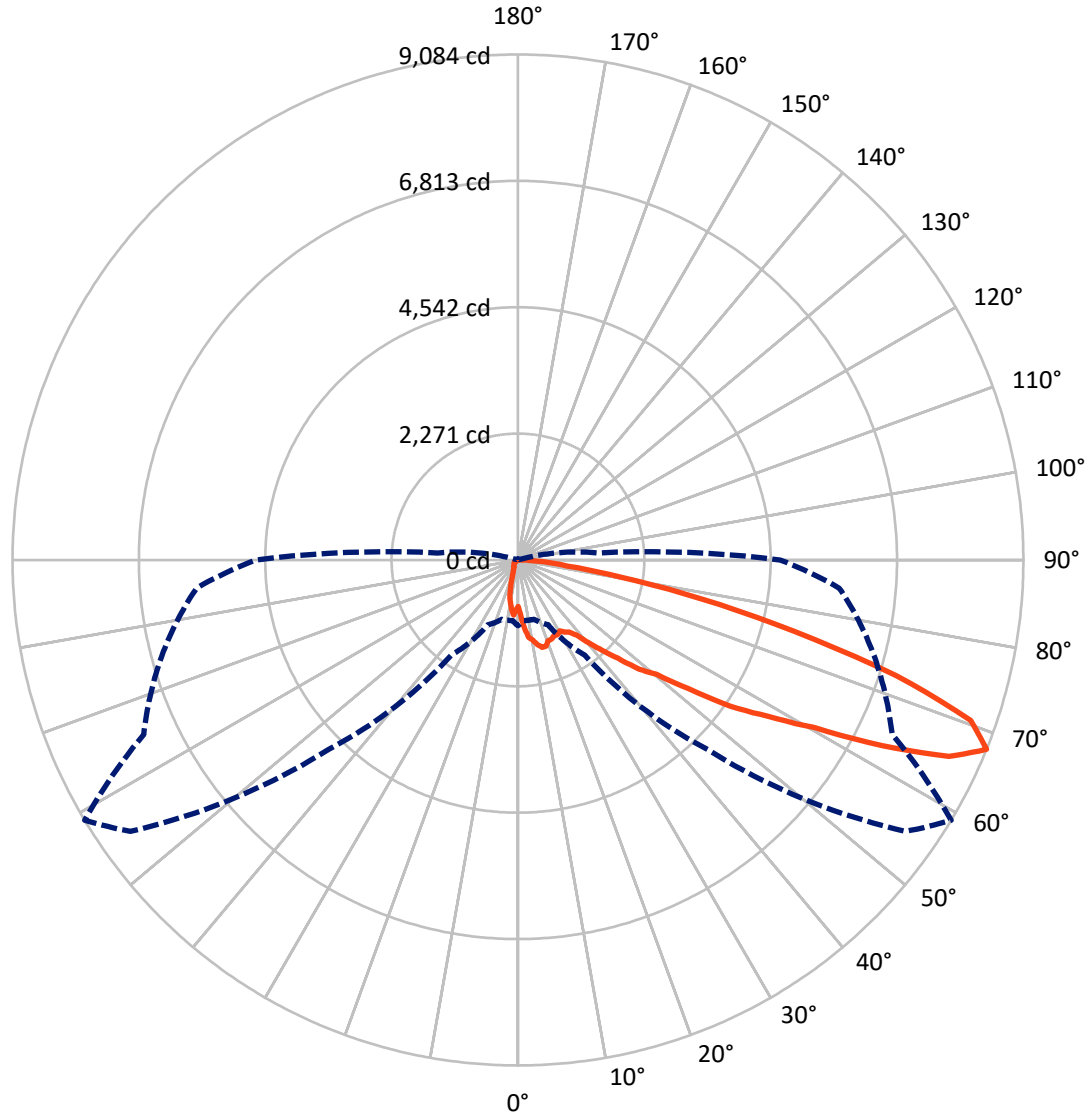
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 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	710.2	0.0	710.2
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	7640.8	0.0	7640.8
	% Fixture	91.5	0.0	91.5
Total	Lumens	8351.0	0.0	8351.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.6	1.2
10°-20°	286.1	3.4
20°-30°	425.5	5.1
30°-40°	656.5	7.9
40°-50°	1171.5	14.0
50°-60°	2084.8	25.0
60°-70°	2428.0	29.1
70°-80°	1079.8	12.9
80°-90°	117.3	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°	8351.0	100.0
0°-180°	8351.0	100.0

Coefficient of Utilization

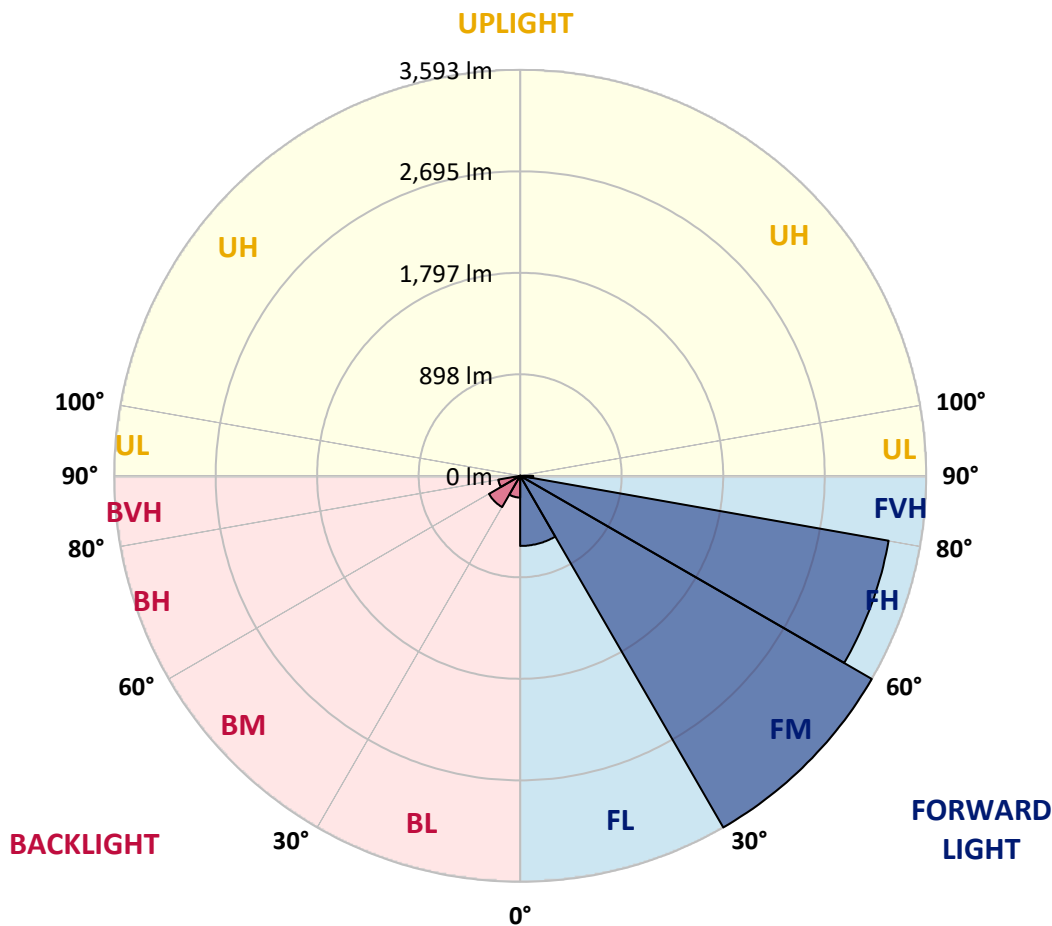


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	621.1	7.4			
FM (30°-60°)	3593.4	43.0			
FH (60°-80°)	3311.1	39.6			G2/5000
FVH (80°-90°)	115.2	1.4			G2/225
BL (0°-30°)	192.1	2.3	B1/500		
BM (30°-60°)	319.3	3.8	B1/1000		
BH (60°-80°)	196.7	2.4	B1/500		G1/500
BVH (80°-90°)	2.1	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°	835.5	835.5	835.5	835.5	835.5	835.5	835.5	835.5	835.5	835.5	835.5
2.5°	1089.3	1048.2	989.9	1007.2	1022.9	1037.7	1013.1	999.2	992.4	932.4	1007.6
5°	1337.5	1286.3	1259.7	1252.9	1236.0	1198.3	1260.9	1233.0	1242.3	1254.2	1278.7
7.5°	1413.2	1389.9	1351.4	1365.8	1301.5	1296.0	1382.7	1406.8	1438.5	1417.0	1446.6
10°	1374.3	1334.1	1352.3	1347.2	1344.7	1401.3	1462.2	1463.5	1510.8	1533.7	1433.4
12.5°	1297.3	1301.9	1367.1	1362.0	1446.6	1559.9	1573.8	1559.0	1636.4	1596.7	1581.4
15°	1348.5	1386.5	1350.6	1362.8	1392.9	1534.5	1584.0	1629.6	1702.8	1726.5	1623.7
17.5°	1410.2	1414.0	1348.5	1333.2	1408.9	1474.9	1591.6	1629.2	1636.4	1844.0	1718.9
20°	1376.8	1409.3	1331.1	1235.1	1352.7	1442.3	1560.7	1548.9	1597.1	1878.7	1740.4
22.5°	1465.6	1419.1	1318.9	1246.6	1286.3	1367.9	1468.1	1545.5	1617.8	1795.8	1768.3
25°	1474.0	1457.1	1367.9	1303.6	1296.9	1317.6	1457.1	1507.0	1620.3	1870.2	1744.7
27.5°	1569.2	1549.7	1367.1	1373.4	1310.0	1246.1	1403.8	1521.0	1666.4	1825.0	1795.0
30°	1691.8	1693.5	1458.0	1477.8	1387.4	1284.6	1447.4	1479.5	1697.7	1897.3	1832.2
32.5°	1816.1	1867.3	1637.7	1532.4	1504.1	1430.5	1393.3	1541.7	1663.5	2020.8	1925.2
35°	2005.1	2039.8	1785.7	1691.4	1580.2	1496.5	1540.4	1593.7	1786.5	2184.4	2047.4
37.5°	2325.2	2262.7	2051.2	1887.2	1860.5	1737.1	1759.0	1711.3	1912.1	2377.2	2289.3
40°	2505.4	2448.7	2228.8	2148.9	1978.9	1997.9	1928.6	1956.5	2094.4	2578.1	2509.6
42.5°	2693.1	2639.0	2446.2	2389.5	2227.6	2148.9	2117.6	2217.8	2373.9	2912.6	2825.5
45°	2881.7	2744.3	2662.7	2691.0	2618.3	2462.7	2426.3	2515.5	2679.2	3323.6	3158.7
47.5°	3040.7	2924.8	2863.5	2850.4	2822.1	3038.2	2890.2	2929.5	3001.8	3687.2	3573.9
50°	3327.4	3213.2	3117.2	3090.6	3228.4	3535.0	3306.7	3230.5	3375.2	4126.6	4055.1
52.5°	3741.3	3595.9	3443.2	3443.7	3703.7	3872.0	3980.3	3846.6	3873.7	4609.9	4578.2
55°	4074.1	3889.3	3762.9	3862.7	4250.5	4344.7	4757.9	4640.7	4605.6	5058.1	5019.2
57.5°	4119.8	3898.2	3838.2	4013.2	4543.9	5146.0	5590.5	5297.8	5244.1	5433.2	5510.5
60°	3693.6	3458.5	3503.7	3785.3	4639.5	5634.4	6355.0	6116.0	5774.8	5872.5	5925.8
62.5°	2754.8	2567.1	2694.0	3066.9	4271.2	5961.7	7240.0	7350.8	6390.5	6202.3	6190.9
65°	1787.4	1669.8	1753.1	2058.8	3232.2	5924.5	8030.7	8511.1	6875.5	6471.2	6274.2
67.5°	1182.3	1093.1	1104.9	1285.9	2090.1	4818.3	8503.4	9084.0	7421.0	6623.9	5796.8
70°	881.2	811.0	815.2	913.3	1240.6	3177.7	7844.2	8632.0	7620.1	6094.9	4678.8
72.5°	635.5	588.6	627.9	737.0	988.6	1680.4	5846.7	7108.9	6644.6	4807.3	3152.3
75°	440.2	409.3	473.6	616.5	902.4	1043.2	3863.5	5117.3	4657.2	3016.2	1425.0
77.5°	244.0	234.7	327.3	502.3	819.1	855.0	2366.7	3362.5	2583.2	1081.2	339.1
80°	106.6	103.2	158.6	377.2	688.4	772.5	1332.4	1864.3	1016.1	192.8	109.5
82.5°	45.7	44.0	67.7	227.1	500.2	646.1	821.6	897.3	349.7	59.6	62.2
85°	8.0	8.9	27.1	119.7	304.4	328.1	594.9	531.1	175.9	28.3	44.4
87.5°	0.0	0.0	4.2	23.3	57.1	93.9	257.9	186.1	33.4	9.3	7.6
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°	835.5	835.5	835.5	835.5	835.5	835.5	835.5	835.5	835.5	835.5	835.5
2.5°	1018.2	994.5	904.5	893.1	880.8	862.6	855.8	816.9	811.9	861.8	861.8
5°	1267.3	1182.7	1096.9	1029.2	968.7	885.0	861.3	836.8	816.9	811.9	827.5
7.5°	1398.8	1295.6	1160.7	988.6	849.1	727.7	677.0	641.5	601.7	613.6	619.9
10°	1391.6	1282.1	1110.0	888.8	734.1	600.0	471.1	395.8	353.9	333.2	330.7
12.5°	1462.2	1359.0	1075.7	809.3	611.9	426.7	296.4	242.7	211.8	212.3	209.7
15°	1503.2	1390.7	1036.0	708.7	430.9	274.4	205.5	193.7	189.4	194.1	191.5
17.5°	1575.5	1424.1	945.9	558.6	296.4	207.2	189.0	184.4	189.9	199.6	197.0
20°	1570.0	1366.2	817.8	393.7	219.0	186.5	178.9	171.7	183.1	193.2	191.5
22.5°	1565.0	1309.6	697.3	290.5	183.1	170.0	163.6	160.7	166.6	178.4	181.0
25°	1520.1	1281.6	575.1	218.2	165.8	154.3	151.4	148.8	151.0	160.7	160.3
27.5°	1575.1	1211.0	444.0	183.1	153.5	140.0	137.4	133.2	129.0	137.4	138.7
30°	1563.7	1220.8	348.0	161.1	141.2	123.0	123.9	115.0	107.4	115.0	115.0
32.5°	1605.1	1149.7	278.7	146.3	129.0	115.9	105.3	96.0	90.5	95.1	96.0
35°	1665.6	1152.7	218.2	137.0	118.4	103.2	90.5	81.2	76.1	78.2	79.5
37.5°	1868.1	1132.4	182.2	129.8	114.6	95.6	82.5	70.2	66.8	69.3	70.6
40°	2000.1	1186.5	160.7	126.0	104.9	88.0	70.6	61.7	58.8	60.0	62.2
42.5°	2248.7	1216.5	150.1	121.8	96.0	75.3	60.5	55.4	51.2	52.9	54.5
45°	2514.7	1267.7	142.1	117.1	89.2	66.0	53.3	49.1	43.6	44.0	45.7
47.5°	2841.5	1389.5	132.8	109.1	79.9	60.0	47.4	41.0	35.9	35.5	37.6
50°	3280.4	1552.3	124.3	98.9	74.0	55.0	41.4	33.4	29.2	27.9	29.6
52.5°	3749.0	1762.8	115.4	91.8	66.8	48.2	35.5	27.1	23.3	22.4	23.7
55°	4213.2	1965.0	107.0	87.1	59.2	41.4	30.0	22.4	19.0	18.2	19.0
57.5°	4742.2	2183.6	96.0	77.8	52.0	35.9	24.9	18.6	15.6	14.8	15.2
60°	5140.5	2260.5	86.7	67.7	45.2	31.7	21.1	14.8	12.7	11.8	12.3
62.5°	5329.6	2135.0	77.8	58.8	39.7	27.5	17.8	12.3	10.6	9.7	9.7
65°	5280.5	1856.7	68.9	50.3	34.3	22.8	14.0	10.6	9.3	8.0	7.6
67.5°	4713.9	1452.9	58.8	42.3	28.8	18.6	11.8	10.1	8.5	7.6	6.3
70°	3738.4	1052.0	47.8	35.1	24.1	15.2	9.3	9.3	8.0	7.6	5.9
72.5°	2450.4	662.2	38.9	28.3	19.9	11.8	7.2	8.5	7.6	7.6	5.5
75°	1061.8	236.8	31.3	22.8	16.5	8.0	6.3	7.6	8.0	7.6	6.3
77.5°	248.6	73.6	24.5	18.2	13.5	5.5	6.3	7.6	8.0	7.2	5.5
80°	93.4	31.3	16.1	11.8	10.6	3.4	5.5	4.7	4.2	3.0	0.8
82.5°	56.7	13.1	8.5	5.9	5.1	0.8	2.5	1.7	0.8	0.8	0.0
85°	40.2	6.3	4.7	4.2	2.5	0.0	0.4	0.0	0.0	0.4	0.0
87.5°	5.5	1.7	2.1	2.1	1.7	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)