

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: P597009

Luminaire Tested: **MSA-SA3A-835-U-SL3-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597009
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-SA3A-835-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) 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: 7941 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

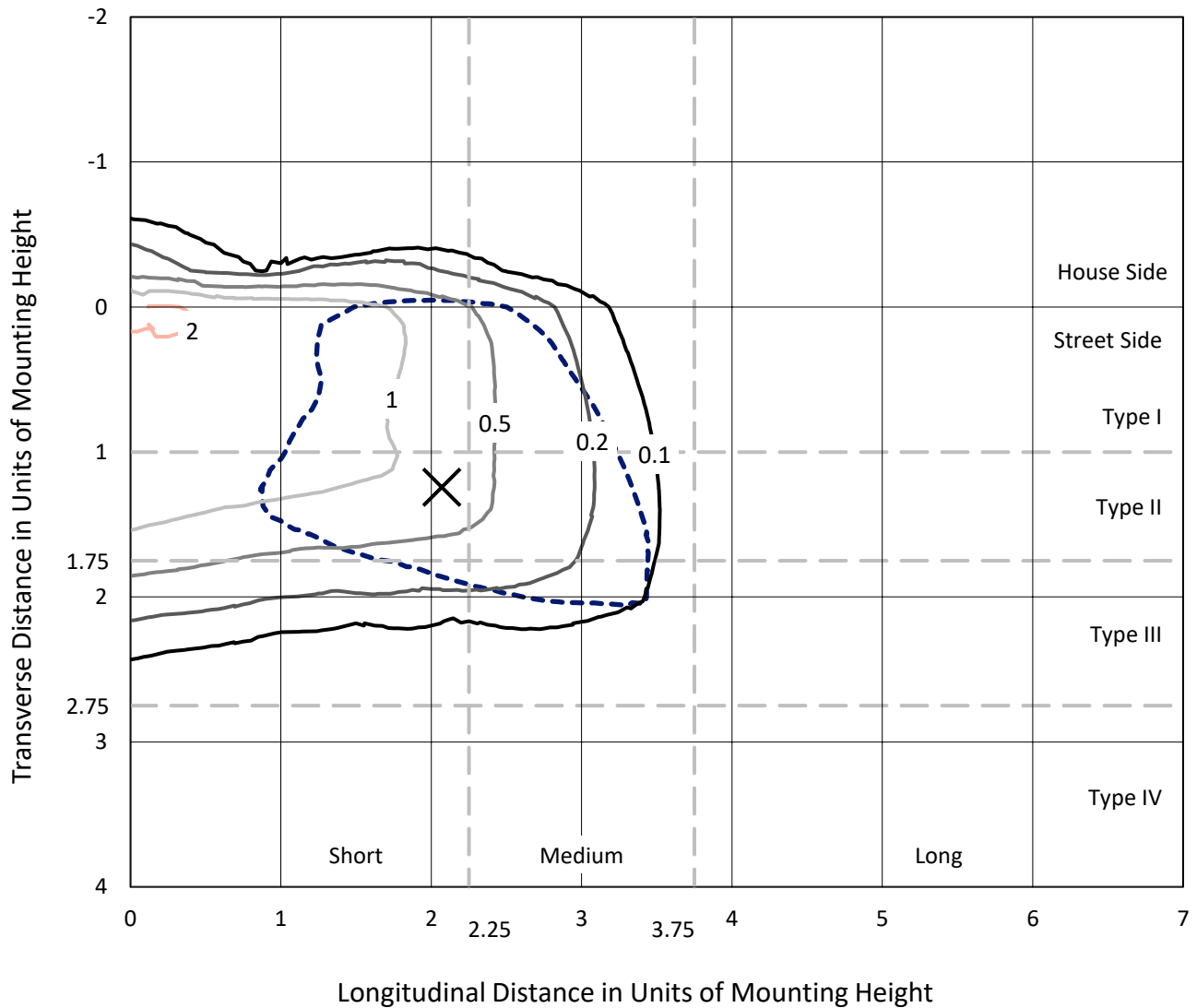
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

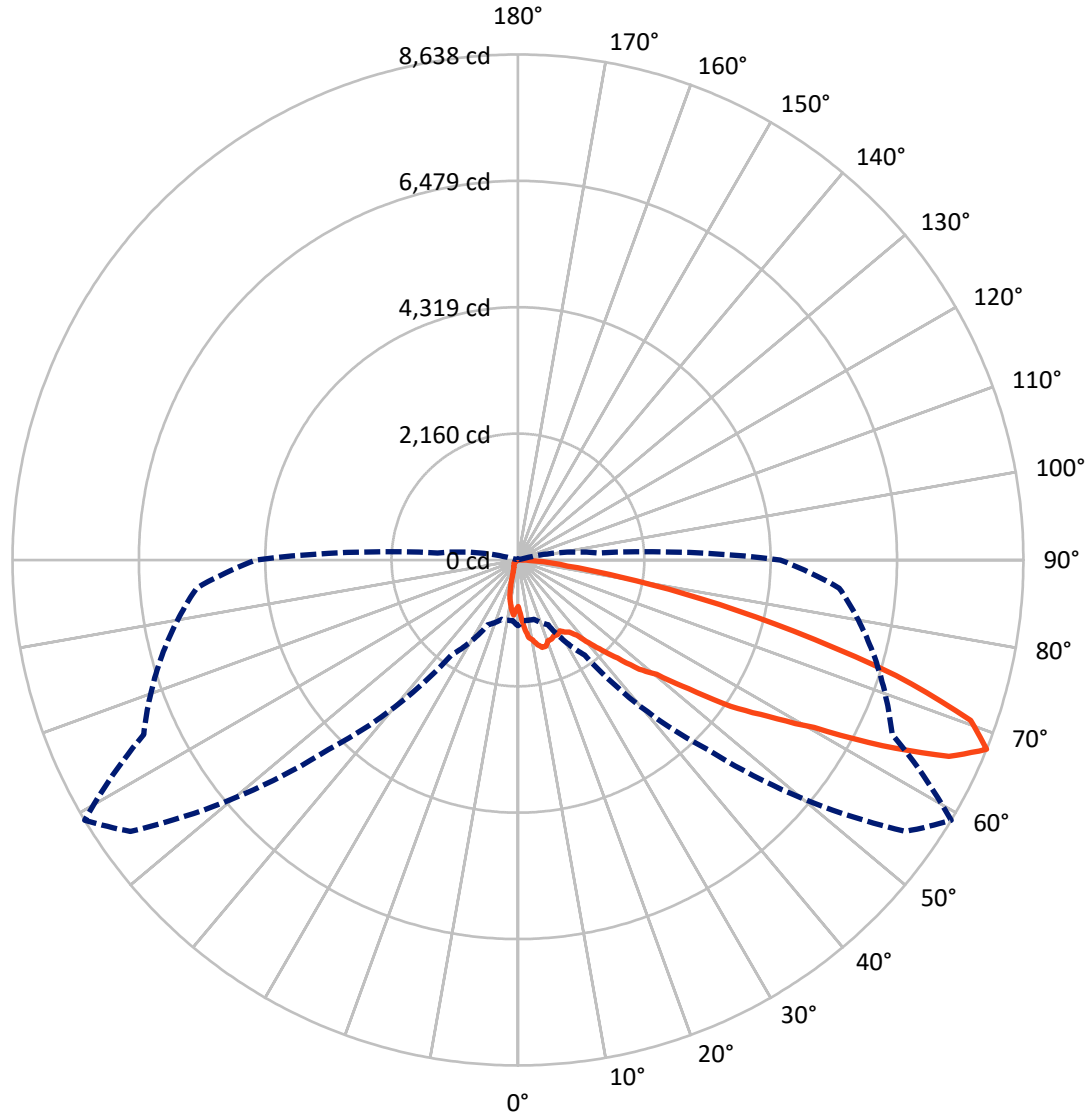
✕ Max cd
 - - - 1/2 Max cd



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	675.3	0.0	675.3
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	7265.7	0.0	7265.7
	% Fixture	91.5	0.0	91.5
Total	Lumens	7941.0	0.0	7941.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	1.2
10°-20°	272.0	3.4
20°-30°	404.6	5.1
30°-40°	624.2	7.9
40°-50°	1114.0	14.0
50°-60°	1982.4	25.0
60°-70°	2308.8	29.1
70°-80°	1026.8	12.9
80°-90°	111.5	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°	7941.0	100.0
0°-180°	7941.0	100.0

Coefficient of Utilization



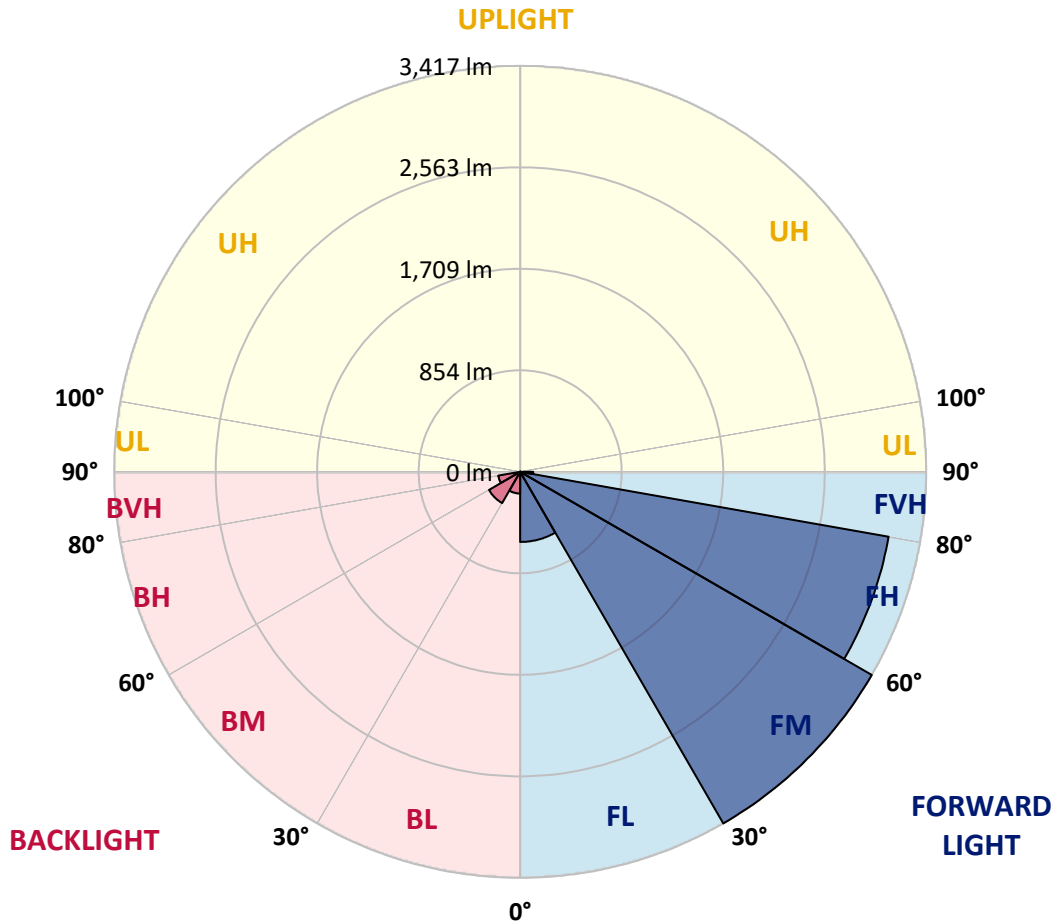
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	590.6	7.4			
FM (30°-60°)	3417.0	43.0			
FH (60°-80°)	3148.5	39.6			G2/5000
FVH (80°-90°)	109.5	1.4			G2/225
BL (0°-30°)	182.6	2.3	B1/500		
BM (30°-60°)	303.6	3.8	B1/1000		
BH (60°-80°)	187.1	2.4	B1/500		G1/500
BVH (80°-90°)	2.0	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°	794.5	794.5	794.5	794.5	794.5	794.5	794.5	794.5	794.5	794.5	794.5
2.5°	1035.8	996.8	941.3	957.8	972.6	986.7	963.4	950.1	943.7	886.6	958.2
5°	1271.8	1223.1	1197.8	1191.4	1175.3	1139.5	1199.0	1172.5	1181.3	1192.6	1215.9
7.5°	1343.8	1321.7	1285.1	1298.7	1237.6	1232.4	1314.8	1337.7	1367.9	1347.4	1375.5
10°	1306.8	1268.6	1285.9	1281.0	1278.6	1332.5	1390.4	1391.6	1436.7	1458.4	1363.1
12.5°	1233.6	1238.0	1299.9	1295.1	1375.5	1483.3	1496.6	1482.5	1556.1	1518.3	1503.8
15°	1282.3	1318.4	1284.3	1295.9	1324.5	1459.2	1506.2	1549.6	1619.2	1641.7	1544.0
17.5°	1341.0	1344.6	1282.3	1267.8	1339.8	1402.5	1513.5	1549.2	1556.1	1753.5	1634.5
20°	1309.2	1340.2	1265.8	1174.5	1286.3	1371.5	1484.1	1472.8	1518.7	1786.5	1655.0
22.5°	1393.6	1349.4	1254.1	1185.4	1223.1	1300.7	1396.0	1469.6	1538.4	1707.7	1681.5
25°	1401.7	1385.6	1300.7	1239.6	1233.2	1252.9	1385.6	1433.0	1540.8	1778.4	1659.0
27.5°	1492.1	1473.6	1299.9	1306.0	1245.7	1184.9	1334.9	1446.3	1584.6	1735.4	1706.9
30°	1608.7	1610.4	1386.4	1405.3	1319.2	1221.5	1376.3	1406.9	1614.4	1804.2	1742.2
32.5°	1727.0	1775.6	1557.3	1457.2	1430.2	1360.3	1324.9	1466.0	1581.8	1921.6	1830.7
35°	1906.7	1939.7	1698.0	1608.3	1502.6	1423.0	1464.8	1515.5	1698.8	2077.2	1946.9
37.5°	2211.1	2151.6	1950.5	1794.5	1769.2	1651.8	1672.7	1627.2	1818.2	2260.5	2176.9
40°	2382.4	2328.5	2119.4	2043.4	1881.8	1899.9	1833.9	1860.5	1991.5	2451.5	2386.4
42.5°	2560.9	2509.4	2326.1	2272.2	2118.2	2043.4	2013.6	2108.9	2257.3	2769.6	2686.7
45°	2740.2	2609.5	2531.9	2558.9	2489.7	2341.8	2307.2	2392.0	2547.6	3160.4	3003.6
47.5°	2891.4	2781.2	2722.9	2710.5	2683.5	2889.0	2748.3	2785.7	2854.4	3506.2	3398.4
50°	3164.0	3055.5	2964.2	2938.8	3069.9	3361.4	3144.3	3071.9	3209.5	3924.0	3856.0
52.5°	3557.7	3419.3	3274.2	3274.6	3521.9	3681.9	3784.8	3657.8	3683.5	4383.5	4353.4
55°	3874.1	3698.4	3578.2	3673.1	4041.8	4131.4	4524.3	4412.9	4379.5	4809.8	4772.8
57.5°	3917.5	3706.8	3649.7	3816.2	4320.8	4893.4	5316.0	5037.7	4986.7	5166.4	5240.0
60°	3512.2	3288.7	3331.7	3599.5	4411.7	5357.8	6043.0	5815.8	5491.3	5584.2	5634.8
62.5°	2619.6	2441.1	2561.7	2916.3	4061.5	5669.0	6884.5	6989.9	6076.7	5897.8	5886.9
65°	1699.6	1587.8	1667.0	1957.8	3073.5	5633.6	7636.4	8093.2	6537.9	6153.5	5966.2
67.5°	1124.2	1039.4	1050.7	1222.7	1987.5	4581.8	8086.0	8638.0	7056.6	6298.7	5512.2
70°	837.9	771.2	775.2	868.5	1179.7	3021.7	7459.1	8208.2	7246.0	5795.7	4449.1
72.5°	604.3	559.7	597.1	700.8	940.1	1597.9	5559.6	6759.9	6318.4	4571.3	2997.6
75°	418.6	389.2	450.3	586.2	858.1	991.9	3673.9	4866.0	4428.6	2868.1	1355.0
77.5°	232.0	223.2	311.2	477.7	778.8	813.0	2250.5	3197.4	2456.3	1028.1	322.5
80°	101.3	98.1	150.8	358.7	654.6	734.6	1267.0	1772.8	966.2	183.4	104.1
82.5°	43.4	41.8	64.3	215.9	475.7	614.4	781.3	853.2	332.5	56.7	59.1
85°	7.6	8.4	25.7	113.8	289.5	312.0	565.7	505.0	167.3	26.9	42.2
87.5°	0.0	0.0	4.0	22.1	54.3	89.3	245.3	176.9	31.8	8.8	7.2
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°	794.5	794.5	794.5	794.5	794.5	794.5	794.5	794.5	794.5	794.5	794.5
2.5°	968.2	945.7	860.1	849.2	837.5	820.3	813.8	776.8	772.0	819.5	819.5
5°	1205.1	1124.6	1043.0	978.7	921.2	841.6	819.0	795.7	776.8	772.0	786.9
7.5°	1330.1	1232.0	1103.7	940.1	807.4	692.0	643.7	610.0	572.2	583.4	589.5
10°	1323.3	1219.1	1055.5	845.2	698.0	570.6	447.9	376.4	336.5	316.8	314.4
12.5°	1390.4	1292.3	1022.9	769.6	581.8	405.7	281.9	230.8	201.4	201.8	199.4
15°	1429.4	1322.5	985.1	673.9	409.7	261.0	195.4	184.2	180.1	184.6	182.1
17.5°	1498.2	1354.2	899.5	531.2	281.9	197.0	179.7	175.3	180.5	189.8	187.4
20°	1492.9	1299.1	777.6	374.3	208.3	177.3	170.1	163.2	174.1	183.8	182.1
22.5°	1488.1	1245.3	663.0	276.2	174.1	161.6	155.6	152.8	158.4	169.7	172.1
25°	1445.5	1218.7	546.8	207.5	157.6	146.8	143.9	141.5	143.5	152.8	152.4
27.5°	1497.8	1151.6	422.2	174.1	146.0	133.1	130.7	126.7	122.6	130.7	131.9
30°	1486.9	1160.8	330.9	153.2	134.3	117.0	117.8	109.4	102.1	109.4	109.4
32.5°	1526.3	1093.3	265.0	139.1	122.6	110.2	100.1	91.3	86.0	90.5	91.3
35°	1583.8	1096.1	207.5	130.3	112.6	98.1	86.0	77.2	72.4	74.4	75.6
37.5°	1776.4	1076.8	173.3	123.4	109.0	90.9	78.4	66.7	63.5	65.9	67.1
40°	1901.9	1128.3	152.8	119.8	99.7	83.6	67.1	58.7	55.9	57.1	59.1
42.5°	2138.3	1156.8	142.7	115.8	91.3	71.6	57.5	52.7	48.7	50.3	51.9
45°	2391.2	1205.5	135.1	111.4	84.8	62.7	50.7	46.6	41.4	41.8	43.4
47.5°	2702.0	1321.3	126.3	103.7	76.0	57.1	45.0	39.0	34.2	33.8	35.8
50°	3119.4	1476.1	118.2	94.1	70.4	52.3	39.4	31.8	27.7	26.5	28.1
52.5°	3564.9	1676.3	109.8	87.3	63.5	45.8	33.8	25.7	22.1	21.3	22.5
55°	4006.4	1868.5	101.7	82.8	56.3	39.4	28.5	21.3	18.1	17.3	18.1
57.5°	4509.4	2076.4	91.3	74.0	49.5	34.2	23.7	17.7	14.9	14.1	14.5
60°	4888.2	2149.6	82.4	64.3	43.0	30.2	20.1	14.1	12.1	11.3	11.7
62.5°	5067.9	2030.1	74.0	55.9	37.8	26.1	16.9	11.7	10.1	9.2	9.2
65°	5021.3	1765.6	65.5	47.8	32.6	21.7	13.3	10.1	8.8	7.6	7.2
67.5°	4482.5	1381.6	55.9	40.2	27.3	17.7	11.3	9.7	8.0	7.2	6.0
70°	3554.8	1000.4	45.4	33.4	22.9	14.5	8.8	8.8	7.6	7.2	5.6
72.5°	2330.1	629.7	37.0	26.9	18.9	11.3	6.8	8.0	7.2	7.2	5.2
75°	1009.6	225.2	29.8	21.7	15.7	7.6	6.0	7.2	7.6	7.2	6.0
77.5°	236.4	70.0	23.3	17.3	12.9	5.2	6.0	7.2	7.6	6.8	5.2
80°	88.9	29.8	15.3	11.3	10.1	3.2	5.2	4.4	4.0	2.8	0.8
82.5°	53.9	12.5	8.0	5.6	4.8	0.8	2.4	1.6	0.8	0.8	0.0
85°	38.2	6.0	4.4	4.0	2.4	0.0	0.4	0.0	0.0	0.4	0.0
87.5°	5.2	1.6	2.0	2.0	1.6	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)