

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: P597089

Luminaire Tested: **MSA-SA3D-835-U-T4W-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597089
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-15)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3D-835-U-T4W-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12371 lumens
Efficiency: N/A
Efficacy: 64.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

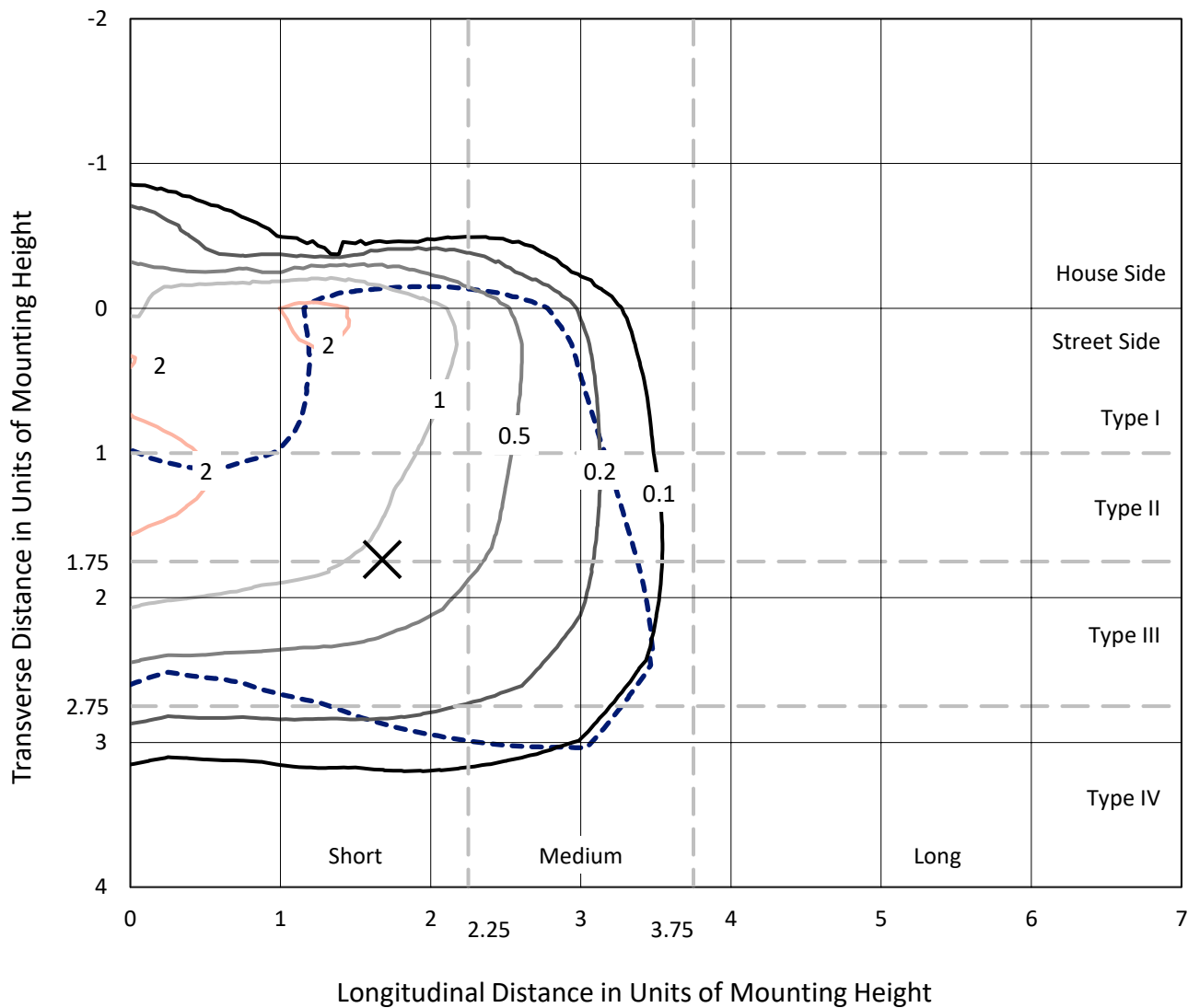
Input Watts (W): 192
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

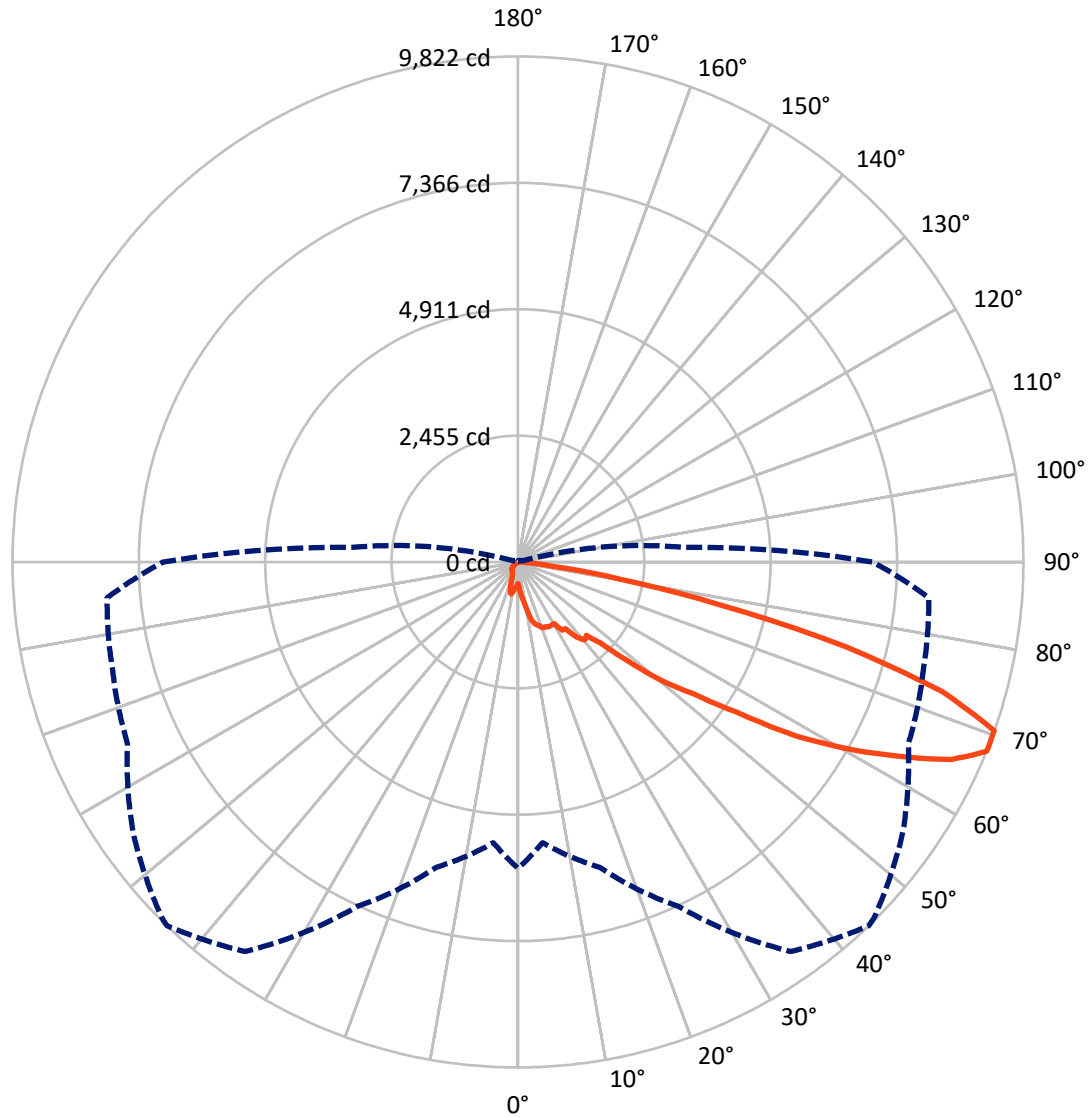
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1256.7	0.0	1256.7
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	11114.3	0.0	11114.3
	% Fixture	89.8	0.0	89.8
Total	Lumens	12371.0	0.0	12371.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.8	0.5
10°-20°	258.6	2.1
20°-30°	458.2	3.7
30°-40°	744.7	6.0
40°-50°	1490.2	12.0
50°-60°	3057.3	24.7
60°-70°	4199.8	33.9
70°-80°	1974.0	16.0
80°-90°	126.4	1.0
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°	12371.0	100.0
0°-180°	12371.0	100.0

Coefficient of Utilization

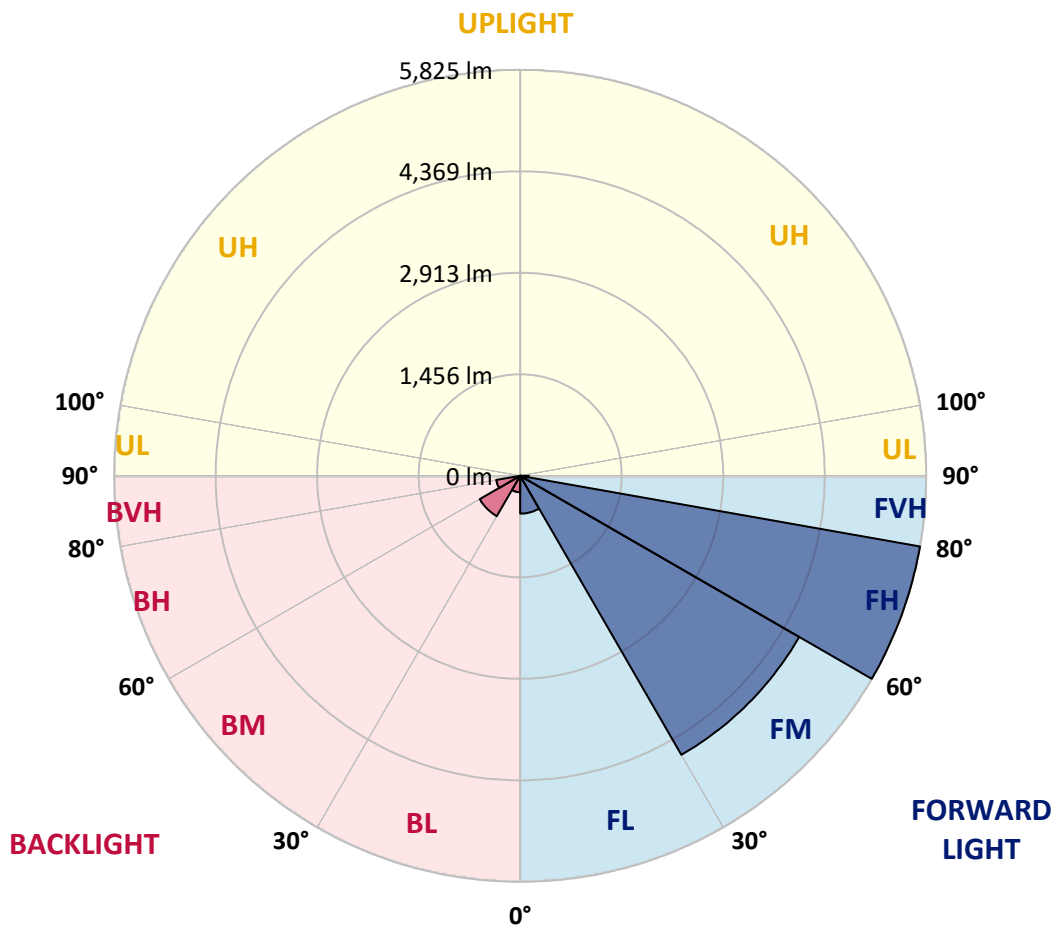


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	542.6	4.4			
FM (30°-60°)	4622.8	37.4			
FH (60°-80°)	5825.0	47.1			G3/7500
FVH (80°-90°)	123.8	1.0			G2/225
BL (0°-30°)	236.0	1.9	B1/500		
BM (30°-60°)	669.4	5.4	B1/1000		
BH (60°-80°)	348.7	2.8	B1/500		G1/500
BVH (80°-90°)	2.6	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-G3
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	416.8	416.8	416.8	416.8	416.8	416.8	416.8	416.8	416.8	416.8	416.8
2.5°	530.0	513.0	488.4	493.9	496.6	504.1	504.8	495.3	468.0	460.5	493.9
5°	742.9	701.3	693.8	678.1	646.7	629.6	625.5	642.6	620.8	613.9	622.8
7.5°	948.9	913.4	874.5	853.4	787.9	747.7	745.6	752.4	756.5	732.6	744.9
10°	1086.0	1047.1	1038.9	989.1	932.5	923.0	918.9	893.0	871.8	854.1	794.7
12.5°	1210.2	1209.5	1224.5	1152.9	1144.0	1153.5	1150.1	1057.4	1036.2	961.9	944.8
15°	1375.2	1416.2	1351.4	1291.3	1214.9	1247.7	1238.8	1179.5	1165.1	1114.7	1041.7
17.5°	1546.5	1557.4	1448.9	1356.8	1337.0	1294.1	1302.9	1281.8	1209.5	1249.7	1177.4
20°	1550.6	1574.4	1458.5	1306.3	1367.1	1365.0	1365.7	1345.2	1249.7	1343.9	1277.7
22.5°	1607.9	1549.2	1441.4	1344.5	1355.5	1365.7	1376.6	1351.4	1330.9	1354.1	1366.4
25°	1584.7	1561.5	1457.8	1393.7	1383.4	1391.6	1394.3	1426.4	1413.4	1469.4	1438.7
27.5°	1644.7	1611.3	1425.7	1437.3	1401.2	1391.6	1375.2	1482.3	1520.5	1476.2	1558.1
30°	1747.7	1742.9	1481.0	1498.0	1470.1	1386.2	1429.8	1569.7	1617.4	1590.1	1689.7
32.5°	1908.7	1925.1	1642.7	1532.1	1546.5	1584.0	1567.6	1569.7	1690.4	1751.1	1830.3
35°	2137.2	2128.4	1800.2	1661.8	1586.7	1592.9	1616.1	1727.2	1883.5	1879.4	1963.3
37.5°	2586.1	2489.2	2079.2	1794.1	1816.6	1847.3	1830.3	1979.6	1994.7	2000.1	2200.7
40°	3247.8	3118.9	2519.2	2073.1	1856.2	1991.9	1983.7	2020.6	2120.9	2158.4	2451.0
42.5°	4119.6	3946.3	3293.5	2586.1	2047.2	1953.7	2004.2	2073.8	2410.8	2517.9	2838.5
45°	5082.8	4732.2	4065.7	3317.4	2526.1	2236.1	2274.3	2404.0	2871.2	3048.6	3402.6
47.5°	5707.0	5398.7	4830.4	3965.4	3025.4	2873.3	2876.7	2904.7	3412.2	3741.0	4215.8
50°	6249.3	5921.2	5393.9	4642.8	3908.8	3620.9	3555.4	3426.5	4101.2	4550.7	5077.4
52.5°	7014.7	6631.3	5957.4	5437.5	4916.4	4238.3	4215.1	4258.8	4913.6	5386.4	5960.8
55°	7705.1	7239.1	6595.9	6268.4	6065.1	5145.6	5165.4	5238.4	5956.7	6207.0	6746.6
57.5°	8010.0	7505.2	7174.3	7027.0	6918.5	6385.1	6318.2	6274.6	6779.4	6874.9	7570.0
60°	8209.9	7729.6	7579.5	7613.7	7942.5	7376.3	7315.5	7061.8	7460.2	7538.6	8308.1
62.5°	8083.7	7645.7	7677.8	7962.2	8692.2	8319.7	8144.4	7720.1	8016.8	8080.3	8838.1
65°	7288.9	6832.6	7244.6	7932.9	9263.8	9254.9	9173.8	8327.9	8325.2	8406.3	8879.1
67.5°	5953.9	5475.1	6141.5	7383.1	9239.9	9821.8	9783.6	9134.2	8369.5	8152.6	8012.7
70°	4139.4	3723.9	4479.8	6097.2	8416.6	9817.7	9756.3	9675.8	8018.9	7017.4	6212.5
72.5°	2150.9	1922.3	2626.3	4201.5	6709.1	8626.0	8828.6	8696.3	6846.9	5098.5	3658.5
75°	730.6	655.6	1083.3	2230.0	4460.0	6587.0	6824.4	6690.0	4650.3	2735.5	1446.9
77.5°	283.1	263.3	388.2	905.2	2237.5	4013.9	4271.7	4134.6	2494.0	1002.1	340.4
80°	161.0	155.5	214.2	407.9	986.4	1996.7	2178.2	1975.6	899.1	337.7	88.7
82.5°	68.2	70.3	119.4	220.3	495.9	704.7	785.9	717.0	376.6	231.3	32.7
85°	15.0	18.4	56.6	122.8	208.1	201.2	210.8	234.0	231.3	169.9	14.3
87.5°	0.0	0.0	17.7	33.4	49.8	32.7	25.9	45.7	70.9	68.2	6.1
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°	416.8	416.8	416.8	416.8	416.8	416.8	416.8	416.8	416.8	416.8	416.8
2.5°	500.0	493.2	450.2	447.5	450.2	442.7	442.0	426.4	427.7	463.2	465.9
5°	622.8	588.7	551.9	540.3	529.4	504.8	518.4	518.4	518.4	541.0	547.8
7.5°	734.0	688.3	636.5	592.8	550.5	519.8	541.0	556.0	564.8	594.2	607.8
10°	784.5	739.5	693.1	631.0	598.3	586.7	562.1	549.1	564.8	558.7	566.2
12.5°	892.3	851.3	771.5	707.4	682.8	643.3	571.0	520.5	487.1	481.6	480.2
15°	997.3	972.1	865.0	779.0	693.8	602.4	478.9	412.0	376.6	370.4	371.1
17.5°	1130.3	1094.2	936.6	813.1	668.5	504.1	369.7	312.4	309.7	324.7	326.1
20°	1219.0	1159.7	972.8	785.2	585.3	381.3	289.2	275.6	297.4	324.7	322.0
22.5°	1303.6	1239.5	1020.5	760.6	453.6	289.2	266.0	267.4	285.8	315.2	322.7
25°	1359.6	1336.4	1079.2	703.3	345.9	250.4	254.4	264.7	280.4	308.3	308.3
27.5°	1528.1	1419.6	1072.4	592.1	266.0	233.3	242.9	255.8	264.0	297.4	300.8
30°	1630.4	1594.9	1107.8	478.9	233.3	211.5	229.9	241.5	246.9	285.1	286.5
32.5°	1755.9	1677.4	1150.8	353.4	216.9	210.1	206.0	214.9	230.6	264.0	266.0
35°	1908.7	1885.5	1089.4	277.6	211.5	196.5	188.3	193.1	203.3	225.8	230.6
37.5°	2220.4	2082.7	1052.6	238.1	211.5	191.7	182.8	170.5	171.9	187.6	196.5
40°	2483.1	2440.8	949.6	231.3	201.9	184.9	163.0	148.0	137.8	142.6	146.0
42.5°	2965.4	2769.6	816.6	227.8	193.1	167.1	138.5	122.8	107.1	108.5	113.9
45°	3550.7	3128.4	697.9	224.4	186.9	149.4	116.7	98.2	81.9	82.5	88.0
47.5°	4332.4	3651.6	553.9	214.2	176.0	133.0	94.1	75.0	65.5	67.5	72.3
50°	5220.6	4110.7	438.0	198.5	163.0	117.3	76.4	60.7	57.3	59.3	64.8
52.5°	6014.0	4449.1	361.5	184.2	144.6	95.5	64.1	53.9	52.5	53.9	58.0
55°	6719.3	4645.5	302.2	167.8	124.2	77.1	58.0	49.8	49.1	48.4	51.2
57.5°	7381.0	4702.2	236.0	141.9	101.0	66.9	53.9	46.4	45.0	43.0	45.0
60°	7863.3	4605.3	173.3	113.9	82.5	60.7	50.5	41.6	39.6	36.2	37.5
62.5°	8095.9	4339.9	131.0	91.4	70.3	55.3	45.0	36.2	33.4	29.3	30.0
65°	7874.9	3902.7	103.0	77.1	60.0	46.4	38.2	30.7	27.3	23.2	23.2
67.5°	6896.0	3237.6	87.3	66.9	50.5	39.6	31.4	28.0	22.5	19.1	18.4
70°	5061.7	2328.9	75.0	58.7	43.7	34.1	26.6	25.2	21.8	18.4	17.1
72.5°	2856.9	1317.9	64.1	51.8	36.8	28.7	22.5	23.2	21.1	17.1	15.7
75°	1090.1	444.1	53.2	43.0	30.0	21.8	19.1	19.1	19.1	14.3	12.3
77.5°	270.1	113.2	42.3	34.8	23.9	14.3	15.7	16.4	16.4	12.3	8.9
80°	74.4	38.2	25.2	25.2	17.1	8.2	10.9	10.9	8.9	4.1	0.0
82.5°	27.3	14.3	8.9	10.9	7.5	2.7	4.1	2.7	2.0	0.0	0.0
85°	11.6	7.5	5.5	6.1	3.4	0.0	0.7	1.4	0.0	0.0	0.0
87.5°	4.8	3.4	2.7	2.7	1.4	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)