

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: P596803

Luminaire Tested: **MSA-SA4C-827-U-T4W-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596803
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-SA4C-827-U-T4W-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) 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: 13335 lumens
Efficiency: N/A
Efficacy: 59.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

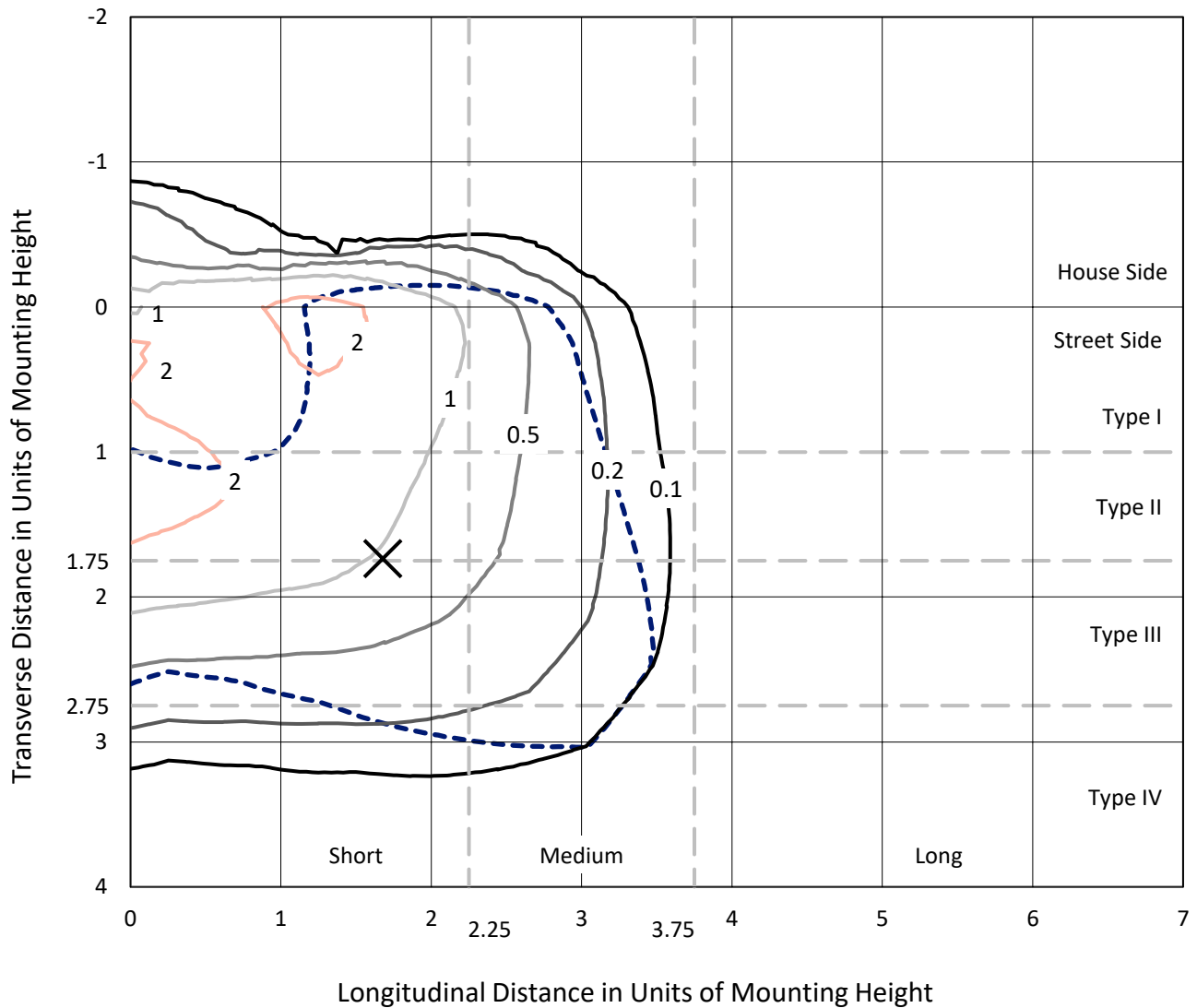
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

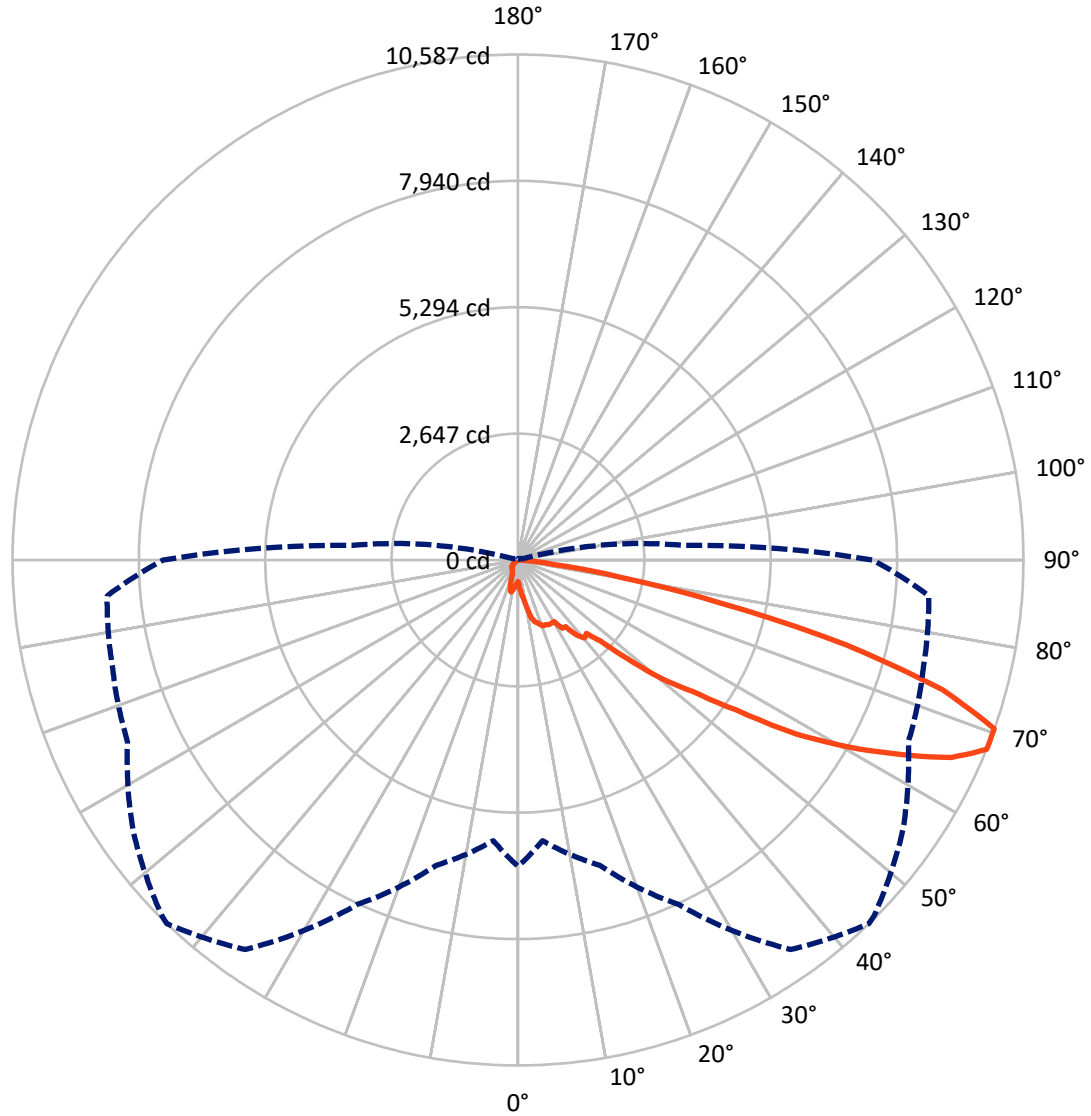
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 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	1354.6	0.0	1354.6
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	11980.4	0.0	11980.4
	% Fixture	89.8	0.0	89.8
Total	Lumens	13335.0	0.0	13335.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.6	0.5
10°-20°	278.8	2.1
20°-30°	493.9	3.7
30°-40°	802.8	6.0
40°-50°	1606.4	12.0
50°-60°	3295.5	24.7
60°-70°	4527.1	33.9
70°-80°	2127.8	16.0
80°-90°	136.3	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°	13335.0	100.0
0°-180°	13335.0	100.0

Coefficient of Utilization

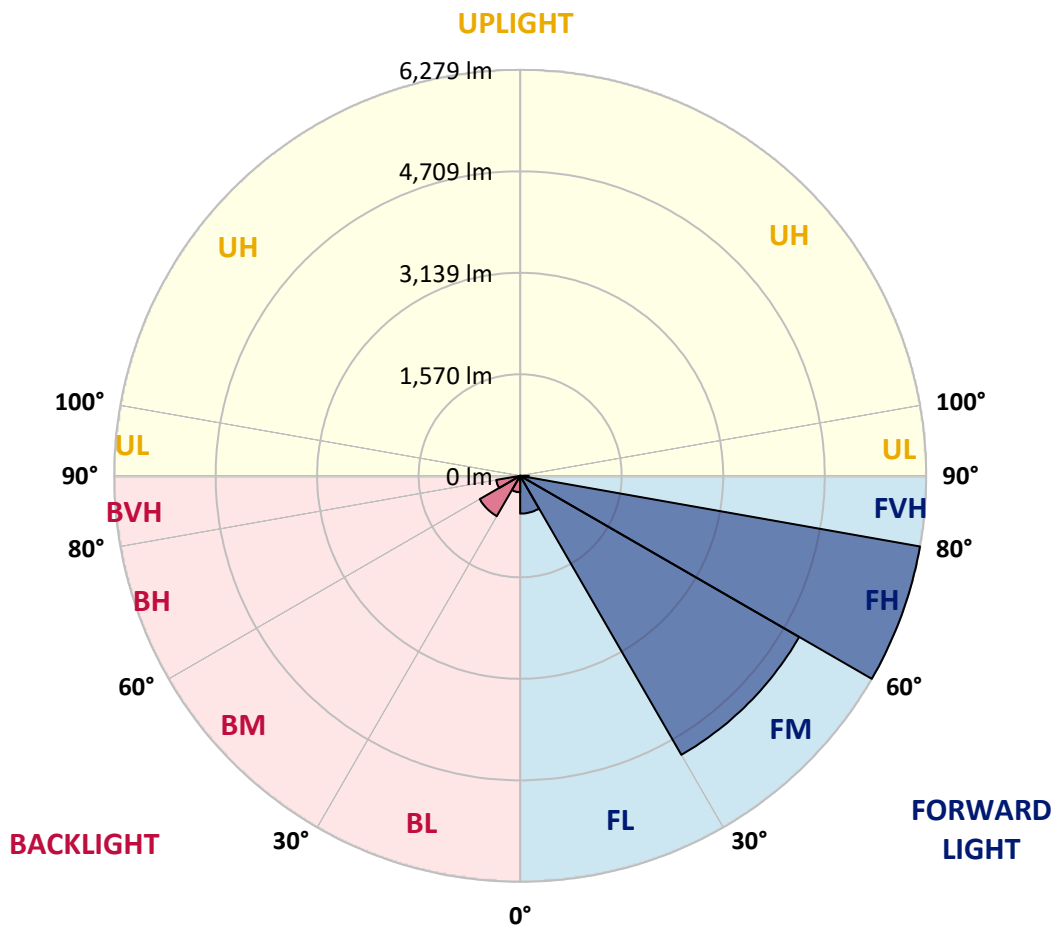


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	584.9	4.4			
FM (30°-60°)	4983.1	37.4			
FH (60°-80°)	6278.9	47.1			G3/7500
FVH (80°-90°)	133.5	1.0			G2/225
BL (0°-30°)	254.3	1.9	B1/500		
BM (30°-60°)	721.6	5.4	B1/1000		
BH (60°-80°)	375.9	2.8	B1/500		G1/500
BVH (80°-90°)	2.8	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°	449.3	449.3	449.3	449.3	449.3	449.3	449.3	449.3	449.3	449.3	449.3
2.5°	571.3	553.0	526.5	532.4	535.3	543.4	544.1	533.8	504.4	496.3	532.4
5°	800.8	755.9	747.8	730.9	697.1	678.7	674.3	692.7	669.1	661.8	671.3
7.5°	1022.8	984.6	942.7	919.9	849.3	805.9	803.7	811.1	815.5	789.7	803.0
10°	1170.6	1128.7	1119.9	1066.2	1005.2	994.9	990.5	962.5	939.7	920.6	856.7
12.5°	1304.5	1303.7	1319.9	1242.7	1233.1	1243.4	1239.8	1139.8	1117.0	1036.8	1018.4
15°	1482.4	1526.5	1456.7	1392.0	1309.6	1344.9	1335.3	1271.4	1255.9	1201.5	1122.8
17.5°	1667.0	1678.7	1561.8	1462.6	1441.2	1394.9	1404.5	1381.7	1303.7	1347.1	1269.2
20°	1671.4	1697.1	1572.1	1408.1	1473.6	1471.4	1472.1	1450.1	1347.1	1448.6	1377.3
22.5°	1733.2	1669.9	1553.7	1449.3	1461.1	1472.1	1483.9	1456.7	1434.6	1459.6	1472.9
25°	1708.2	1683.2	1571.4	1502.3	1491.2	1500.1	1503.0	1537.6	1523.6	1583.9	1550.8
27.5°	1772.9	1736.8	1536.8	1549.3	1510.4	1500.1	1482.4	1597.9	1639.0	1591.2	1679.5
30°	1883.9	1878.8	1596.4	1614.8	1584.6	1494.2	1541.2	1692.0	1743.5	1714.0	1821.4
32.5°	2057.4	2075.1	1770.7	1651.5	1667.0	1707.4	1689.8	1692.0	1822.1	1887.6	1972.9
35°	2303.8	2294.2	1940.5	1791.2	1710.4	1717.0	1742.0	1861.8	2030.2	2025.8	2116.3
37.5°	2787.6	2683.2	2241.3	1933.9	1958.2	1991.3	1972.9	2133.9	2150.1	2156.0	2372.2
40°	3500.9	3361.9	2715.5	2234.6	2000.8	2147.1	2138.3	2178.0	2286.1	2326.6	2642.0
42.5°	4440.6	4253.8	3550.1	2787.6	2206.7	2106.0	2160.4	2235.4	2598.6	2714.1	3059.7
45°	5478.9	5100.9	4382.5	3575.9	2722.9	2410.4	2451.6	2591.3	3095.0	3286.2	3667.8
47.5°	6151.7	5819.3	5206.8	4274.4	3261.2	3097.2	3100.9	3131.0	3678.1	4032.5	4544.3
50°	6736.3	6382.6	5814.2	5004.6	4213.4	3903.1	3832.5	3693.5	4420.8	4905.3	5473.0
52.5°	7561.3	7148.1	6421.6	5861.3	5299.5	4568.6	4543.6	4590.6	5296.5	5806.1	6425.3
55°	8305.5	7803.2	7109.8	6756.9	6537.8	5546.5	5567.9	5646.5	6420.8	6690.7	7272.3
57.5°	8634.2	8090.0	7733.4	7574.6	7457.6	6882.6	6810.6	6763.5	7307.6	7410.6	8159.9
60°	8849.6	8331.9	8170.2	8206.9	8561.4	7951.0	7885.6	7612.1	8041.5	8126.1	8955.5
62.5°	8713.6	8241.5	8276.1	8582.7	9369.5	8968.0	8779.0	8321.7	8641.5	8709.9	9526.8
65°	7856.9	7365.0	7809.1	8551.1	9985.7	9976.1	9888.6	8976.8	8973.9	9061.4	9571.0
67.5°	6417.9	5901.7	6620.1	7958.4	9960.0	10587.2	10546.0	9846.0	9021.7	8787.8	8637.1
70°	4461.9	4014.1	4828.9	6572.3	9072.4	10582.8	10516.6	10429.8	8643.7	7564.3	6696.6
72.5°	2318.5	2072.1	2831.0	4528.9	7231.9	9298.2	9516.6	9373.9	7380.4	5495.8	3943.5
75°	787.5	706.6	1167.7	2403.8	4807.5	7100.3	7356.2	7211.3	5012.7	2948.6	1559.6
77.5°	305.2	283.8	418.4	975.8	2411.9	4326.6	4604.6	4456.8	2688.3	1080.2	366.9
80°	173.5	167.7	230.9	439.7	1063.3	2152.3	2347.9	2129.5	969.2	364.0	95.6
82.5°	73.5	75.7	128.7	237.5	534.6	759.6	847.1	772.8	405.9	249.3	35.3
85°	16.2	19.9	61.0	132.4	224.3	216.9	227.2	252.2	249.3	183.1	15.4
87.5°	0.0	0.0	19.1	36.0	53.7	35.3	27.9	49.3	76.5	73.5	6.6
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°	449.3	449.3	449.3	449.3	449.3	449.3	449.3	449.3	449.3	449.3	449.3
2.5°	539.0	531.6	485.3	482.4	485.3	477.2	476.5	459.6	461.0	499.3	502.2
5°	671.3	634.6	594.9	582.4	570.6	544.1	558.8	558.8	558.8	583.1	590.5
7.5°	791.2	741.9	686.1	639.0	593.4	560.3	583.1	599.3	608.8	640.5	655.2
10°	845.6	797.1	747.1	680.2	644.9	632.4	605.9	591.9	608.8	602.2	610.3
12.5°	961.8	917.7	831.7	762.5	736.1	693.4	615.5	561.1	525.0	519.1	517.7
15°	1075.0	1047.8	932.4	839.7	747.8	649.3	516.2	444.1	405.9	399.3	400.0
17.5°	1218.4	1179.5	1009.6	876.5	720.6	543.4	398.5	336.8	333.8	350.0	351.5
20°	1314.0	1250.0	1048.6	846.4	630.9	411.0	311.8	297.1	320.6	350.0	347.1
22.5°	1405.2	1336.1	1100.0	819.9	489.0	311.8	286.8	288.2	308.1	339.7	347.8
25°	1465.5	1440.5	1163.3	758.1	372.8	269.9	274.3	285.3	302.2	332.4	332.4
27.5°	1647.1	1530.2	1155.9	638.3	286.8	251.5	261.8	275.7	284.6	320.6	324.3
30°	1757.4	1719.2	1194.2	516.2	251.5	228.0	247.8	260.3	266.2	307.4	308.8
32.5°	1892.7	1808.2	1240.5	380.9	233.8	226.5	222.1	231.6	248.5	284.6	286.8
35°	2057.4	2032.4	1174.3	299.3	228.0	211.8	202.9	208.1	219.1	243.4	248.5
37.5°	2393.5	2244.9	1134.6	256.6	228.0	206.6	197.1	183.8	185.3	202.2	211.8
40°	2676.6	2631.0	1023.6	249.3	217.7	199.3	175.7	159.6	148.5	153.7	157.4
42.5°	3196.4	2985.4	880.2	245.6	208.1	180.2	149.3	132.4	115.4	116.9	122.8
45°	3827.4	3372.2	752.2	241.9	201.5	161.0	125.7	105.9	88.2	89.0	94.9
47.5°	4670.0	3936.2	597.1	230.9	189.7	143.4	101.5	80.9	70.6	72.8	77.9
50°	5627.4	4431.1	472.1	214.0	175.7	126.5	82.4	65.4	61.8	64.0	69.9
52.5°	6482.6	4795.8	389.7	198.5	155.9	102.9	69.1	58.1	56.6	58.1	62.5
55°	7242.9	5007.6	325.7	180.9	133.8	83.1	62.5	53.7	52.9	52.2	55.1
57.5°	7956.2	5068.6	254.4	152.9	108.8	72.1	58.1	50.0	48.5	46.3	48.5
60°	8476.1	4964.2	186.8	122.8	89.0	65.4	54.4	44.9	42.6	39.0	40.4
62.5°	8726.8	4678.1	141.2	98.5	75.7	59.6	48.5	39.0	36.0	31.6	32.4
65°	8488.6	4206.8	111.0	83.1	64.7	50.0	41.2	33.1	29.4	25.0	25.0
67.5°	7433.4	3489.8	94.1	72.1	54.4	42.6	33.8	30.1	24.3	20.6	19.9
70°	5456.1	2510.4	80.9	63.2	47.1	36.8	28.7	27.2	23.5	19.9	18.4
72.5°	3079.5	1420.6	69.1	55.9	39.7	30.9	24.3	25.0	22.8	18.4	16.9
75°	1175.0	478.7	57.4	46.3	32.4	23.5	20.6	20.6	20.6	15.4	13.2
77.5°	291.2	122.1	45.6	37.5	25.7	15.4	16.9	17.6	17.6	13.2	9.6
80°	80.2	41.2	27.2	27.2	18.4	8.8	11.8	11.8	9.6	4.4	0.0
82.5°	29.4	15.4	9.6	11.8	8.1	2.9	4.4	2.9	2.2	0.0	0.0
85°	12.5	8.1	5.9	6.6	3.7	0.0	0.7	1.5	0.0	0.0	0.0
87.5°	5.1	3.7	2.9	2.9	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)