

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: P368357

Luminaire Tested: **MSA-SA4B-730-U-T4W-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368357
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-15)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4B-730-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: 13340 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

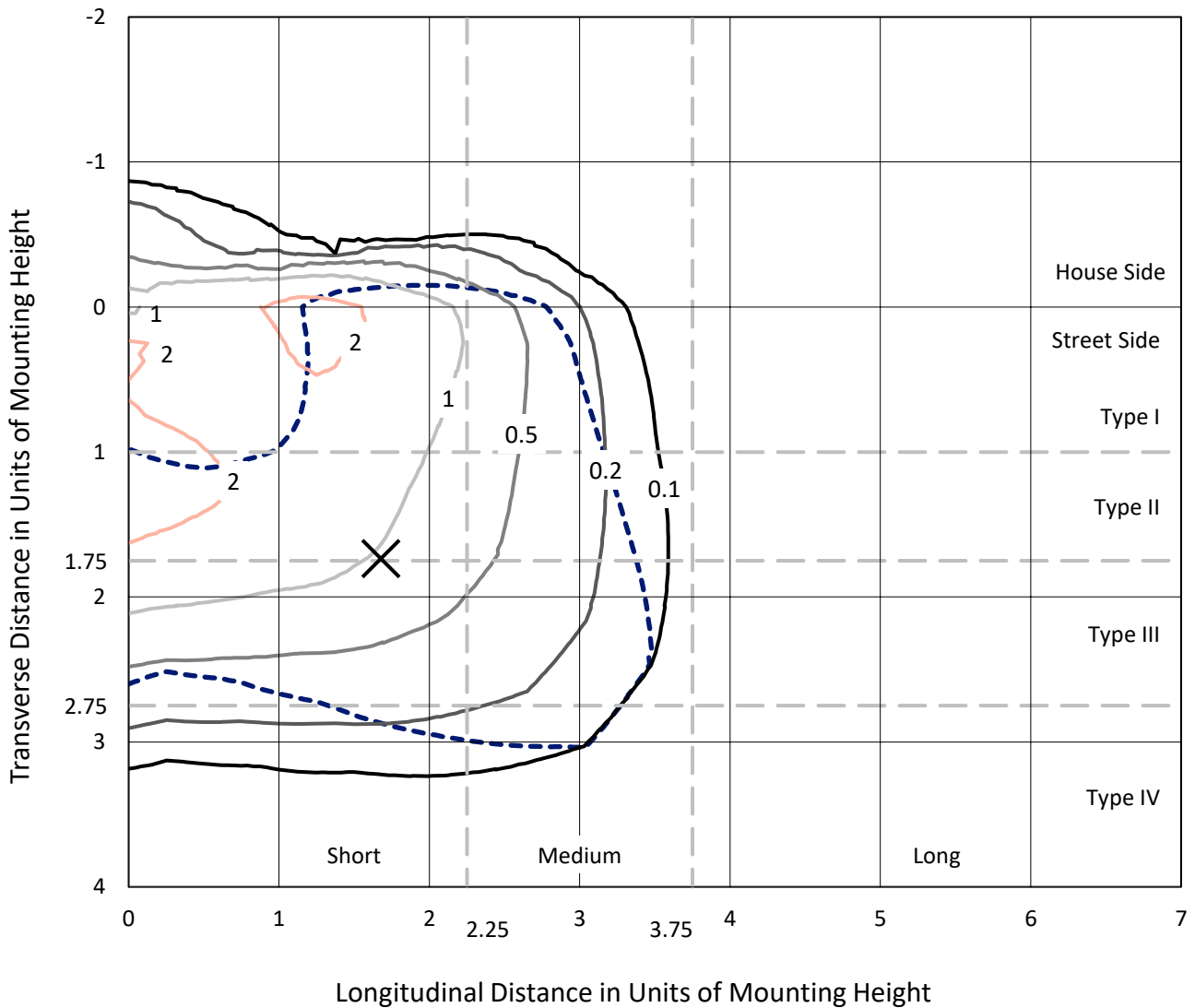
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

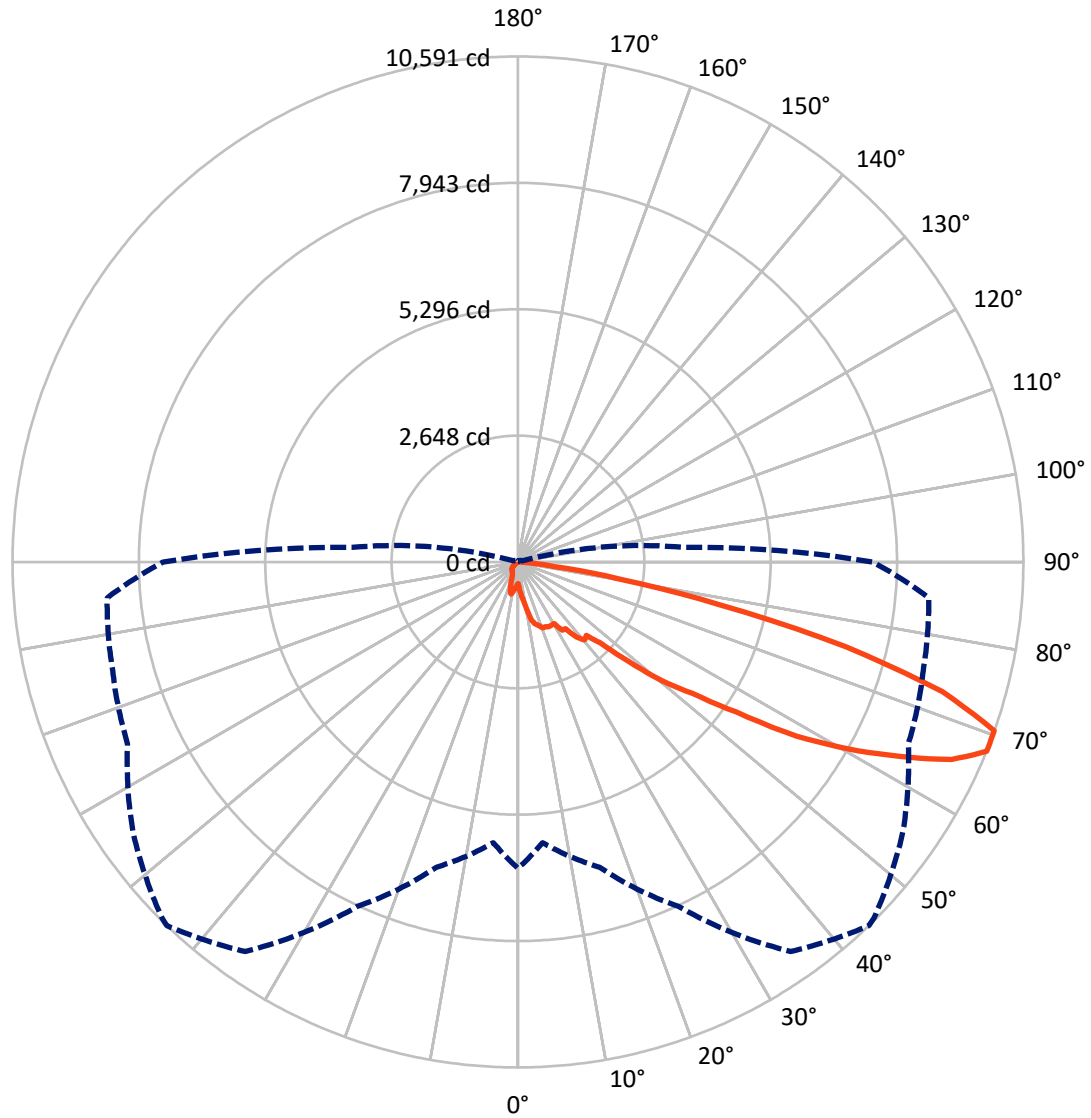
✕ Max cd
 - - - 1/2 Max cd



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	1355.1	0.0	1355.1
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	11984.9	0.0	11984.9
	% Fixture	89.8	0.0	89.8
Total	Lumens	13340.0	0.0	13340.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.6	0.5
10°-20°	278.9	2.1
20°-30°	494.1	3.7
30°-40°	803.0	6.0
40°-50°	1607.0	12.0
50°-60°	3296.8	24.7
60°-70°	4528.8	33.9
70°-80°	2128.6	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°	13340.0	100.0
0°-180°	13340.0	100.0

Coefficient of Utilization

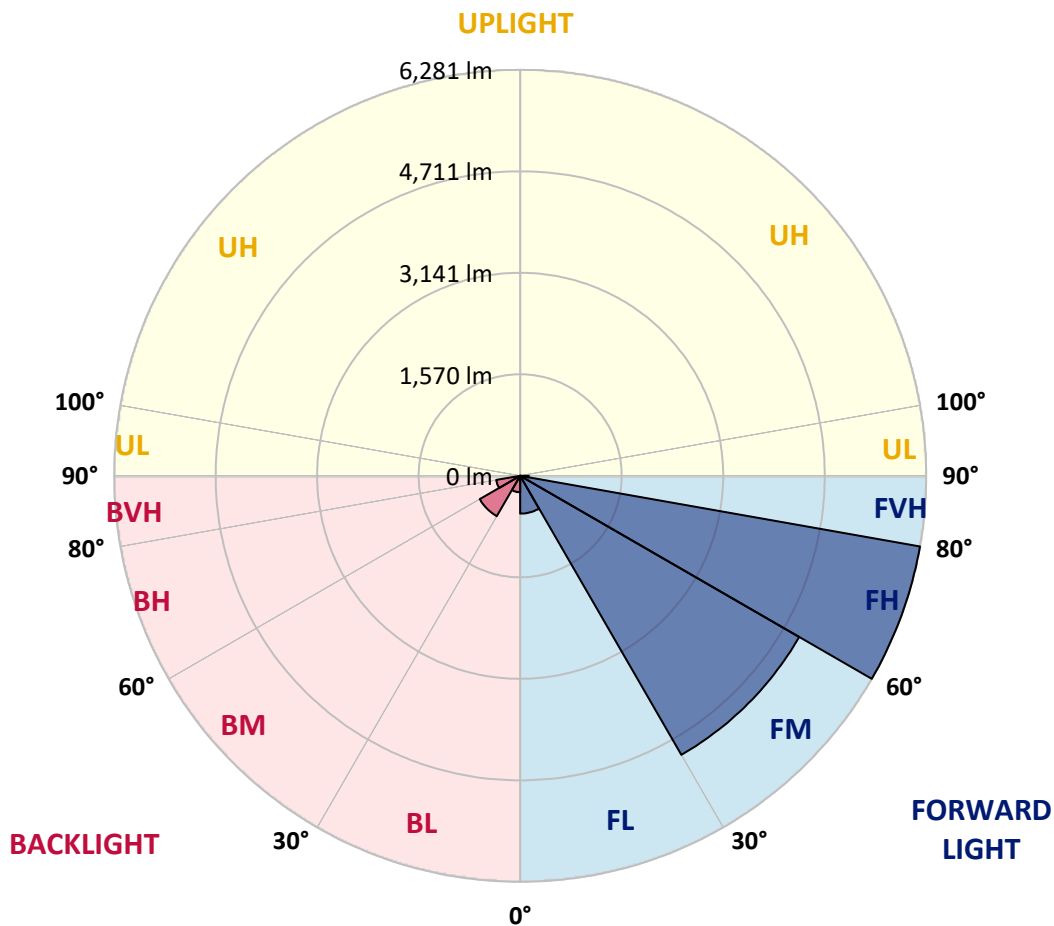


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	585.1	4.4			
FM (30°-60°)	4984.9	37.4			
FH (60°-80°)	6281.3	47.1			G3/7500
FVH (80°-90°)	133.6	1.0			G2/225
BL (0°-30°)	254.4	1.9	B1/500		
BM (30°-60°)	721.8	5.4	B1/1000		
BH (60°-80°)	376.0	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°	449.5	449.5	449.5	449.5	449.5	449.5	449.5	449.5	449.5	449.5	449.5
2.5°	571.6	553.2	526.7	532.6	535.5	543.6	544.3	534.0	504.6	496.5	532.6
5°	801.1	756.2	748.1	731.2	697.3	679.0	674.5	692.9	669.4	662.0	671.6
7.5°	1023.2	985.0	943.0	920.2	849.6	806.2	804.0	811.4	815.8	790.0	803.3
10°	1171.1	1129.1	1120.3	1066.6	1005.6	995.3	990.9	962.9	940.1	921.0	857.0
12.5°	1305.0	1304.2	1320.4	1243.2	1233.6	1243.9	1240.2	1140.2	1117.4	1037.2	1018.8
15°	1483.0	1527.1	1457.2	1392.5	1310.1	1345.4	1335.8	1271.9	1256.4	1202.0	1123.3
17.5°	1667.6	1679.4	1562.4	1463.1	1441.8	1395.4	1405.0	1382.2	1304.2	1347.6	1269.6
20°	1672.0	1697.8	1572.7	1408.7	1474.1	1471.9	1472.7	1450.6	1347.6	1449.1	1377.8
22.5°	1733.8	1670.5	1554.3	1449.9	1461.6	1472.7	1484.4	1457.2	1435.2	1460.2	1473.4
25°	1708.8	1683.8	1572.0	1502.8	1491.8	1500.6	1503.6	1538.1	1524.2	1584.5	1551.4
27.5°	1773.5	1737.5	1537.4	1549.9	1510.9	1500.6	1483.0	1598.5	1639.6	1591.8	1680.1
30°	1884.6	1879.5	1597.0	1615.4	1585.2	1494.7	1541.8	1692.6	1744.1	1714.7	1822.1
32.5°	2058.2	2075.9	1771.3	1652.2	1667.6	1708.1	1690.4	1692.6	1822.8	1888.3	1973.6
35°	2304.6	2295.1	1941.2	1791.9	1711.0	1717.6	1742.6	1862.5	2031.0	2026.6	2117.1
37.5°	2788.7	2684.2	2242.1	1934.6	1958.9	1992.0	1973.6	2134.7	2150.9	2156.8	2373.0
40°	3502.2	3363.2	2716.6	2235.5	2001.6	2147.9	2139.1	2178.8	2287.0	2327.4	2643.0
42.5°	4442.3	4255.4	3551.5	2788.7	2207.5	2106.8	2161.2	2236.2	2599.6	2715.1	3060.8
45°	5480.9	5102.8	4384.2	3577.2	2723.9	2411.3	2452.5	2592.3	3096.1	3287.4	3669.2
47.5°	6154.0	5821.5	5208.8	4276.0	3262.4	3098.3	3102.0	3132.2	3679.5	4034.0	4546.0
50°	6738.8	6385.0	5816.4	5006.5	4215.0	3904.6	3833.9	3694.9	4422.4	4907.2	5475.1
52.5°	7564.2	7150.8	6424.0	5863.5	5301.5	4570.3	4545.3	4592.3	5298.5	5808.3	6427.7
55°	8308.6	7806.2	7112.5	6759.4	6540.2	5548.6	5570.0	5648.7	6423.2	6693.2	7275.1
57.5°	8637.4	8093.1	7736.3	7577.4	7460.4	6885.2	6813.1	6766.0	7310.4	7413.4	8162.9
60°	8852.9	8335.1	8173.2	8210.0	8564.6	7954.0	7888.6	7614.9	8044.5	8129.1	8958.9
62.5°	8716.8	8244.6	8279.2	8585.9	9373.0	8971.4	8782.3	8324.8	8644.8	8713.2	9530.4
65°	7859.9	7367.8	7812.1	8554.3	9989.4	9979.9	9892.3	8980.2	8977.2	9064.8	9574.6
67.5°	6420.3	5903.9	6622.6	7961.4	9963.7	10591.2	10550.0	9849.7	9025.1	8791.1	8640.3
70°	4463.6	4015.6	4830.7	6574.8	9075.8	10586.7	10520.5	10433.7	8647.0	7567.1	6699.1
72.5°	2319.3	2072.9	2832.1	4530.6	7234.6	9301.6	9520.1	9377.4	7383.2	5497.9	3945.0
75°	787.8	706.9	1168.1	2404.7	4809.3	7102.9	7358.9	7214.0	5014.6	2949.8	1560.2
77.5°	305.3	283.9	418.6	976.1	2412.8	4328.3	4606.3	4458.5	2689.3	1080.6	367.1
80°	173.6	167.7	231.0	439.9	1063.7	2153.1	2348.8	2130.3	969.5	364.1	95.6
82.5°	73.6	75.8	128.7	237.6	534.8	759.9	847.4	773.1	406.1	249.4	35.3
85°	16.2	19.9	61.1	132.4	224.4	217.0	227.3	252.3	249.4	183.2	15.4
87.5°	0.0	0.0	19.1	36.0	53.7	35.3	28.0	49.3	76.5	73.6	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°	449.5	449.5	449.5	449.5	449.5	449.5	449.5	449.5	449.5	449.5	449.5
2.5°	539.2	531.8	485.5	482.6	485.5	477.4	476.7	459.7	461.2	499.5	502.4
5°	671.6	634.8	595.1	582.6	570.8	544.3	559.1	559.1	559.1	583.3	590.7
7.5°	791.5	742.2	686.3	639.2	593.6	560.5	583.3	599.5	609.1	640.7	655.4
10°	845.9	797.4	747.4	680.4	645.1	632.6	606.1	592.2	609.1	602.5	610.5
12.5°	962.2	918.0	832.0	762.8	736.3	693.7	615.7	561.3	525.2	519.3	517.9
15°	1075.4	1048.2	932.7	840.1	748.1	649.5	516.4	444.3	406.1	399.4	400.2
17.5°	1218.9	1179.9	1010.0	876.8	720.9	543.6	398.7	336.9	334.0	350.1	351.6
20°	1314.5	1250.5	1049.0	846.7	631.1	411.2	311.9	297.2	320.7	350.1	347.2
22.5°	1405.7	1336.6	1100.5	820.2	489.2	311.9	286.9	288.4	308.2	339.8	347.9
25°	1466.0	1441.0	1163.7	758.4	372.9	270.0	274.4	285.4	302.3	332.5	332.5
27.5°	1647.7	1530.8	1156.4	638.5	286.9	251.6	261.9	275.8	284.7	320.7	324.4
30°	1758.1	1719.8	1194.6	516.4	251.6	228.0	247.9	260.4	266.3	307.5	309.0
32.5°	1893.4	1808.8	1241.0	381.0	233.9	226.6	222.2	231.7	248.6	284.7	286.9
35°	2058.2	2033.2	1174.8	299.4	228.0	211.9	203.0	208.2	219.2	243.5	248.6
37.5°	2394.4	2245.8	1135.0	256.7	228.0	206.7	197.1	183.9	185.4	202.3	211.9
40°	2677.6	2632.0	1024.0	249.4	217.7	199.3	175.8	159.6	148.6	153.7	157.4
42.5°	3197.6	2986.5	880.5	245.7	208.2	180.2	149.3	132.4	115.5	117.0	122.8
45°	3828.8	3373.5	752.5	242.0	201.6	161.1	125.8	105.9	88.3	89.0	94.9
47.5°	4671.8	3937.7	597.3	231.0	189.8	143.4	101.5	80.9	70.6	72.8	78.0
50°	5629.5	4432.7	472.3	214.1	175.8	126.5	82.4	65.5	61.8	64.0	69.9
52.5°	6485.0	4797.6	389.9	198.6	155.9	103.0	69.1	58.1	56.6	58.1	62.5
55°	7245.6	5009.4	325.9	181.0	133.9	83.1	62.5	53.7	53.0	52.2	55.2
57.5°	7959.2	5070.5	254.5	153.0	108.9	72.1	58.1	50.0	48.5	46.3	48.5
60°	8479.2	4966.0	186.8	122.8	89.0	65.5	54.4	44.9	42.7	39.0	40.5
62.5°	8730.1	4679.9	141.2	98.6	75.8	59.6	48.5	39.0	36.0	31.6	32.4
65°	8491.8	4208.4	111.1	83.1	64.7	50.0	41.2	33.1	29.4	25.0	25.0
67.5°	7436.2	3491.2	94.2	72.1	54.4	42.7	33.8	30.2	24.3	20.6	19.9
70°	5458.1	2511.3	80.9	63.3	47.1	36.8	28.7	27.2	23.5	19.9	18.4
72.5°	3080.7	1421.2	69.1	55.9	39.7	30.9	24.3	25.0	22.8	18.4	16.9
75°	1175.5	478.9	57.4	46.3	32.4	23.5	20.6	20.6	20.6	15.4	13.2
77.5°	291.3	122.1	45.6	37.5	25.7	15.4	16.9	17.7	17.7	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)