

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: P368577

Luminaire Tested: **MSA-SA4C-830-U-T4W-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368577
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-SA4C-830-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: 14415 lumens
Efficiency: N/A
Efficacy: 64.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

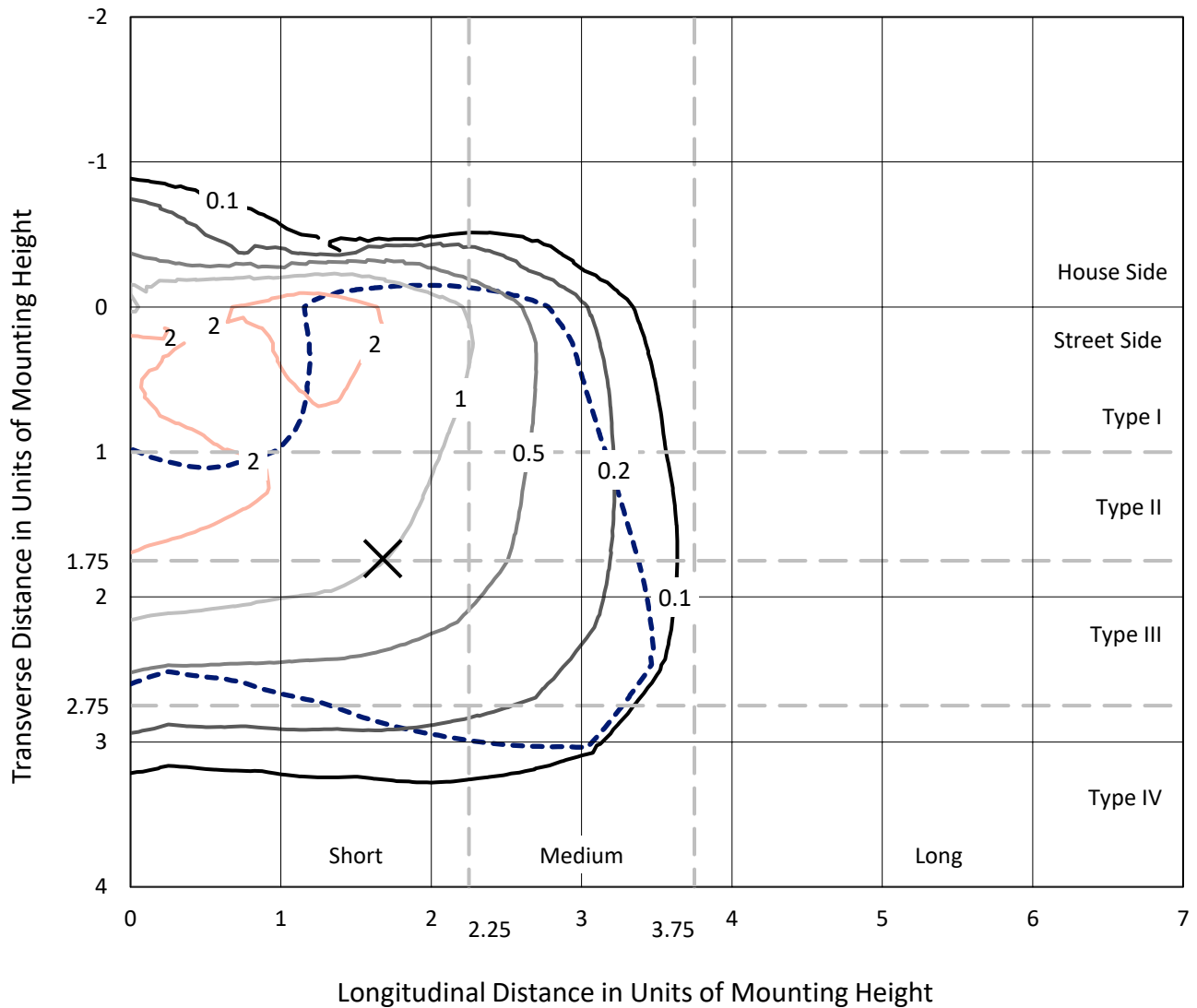
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

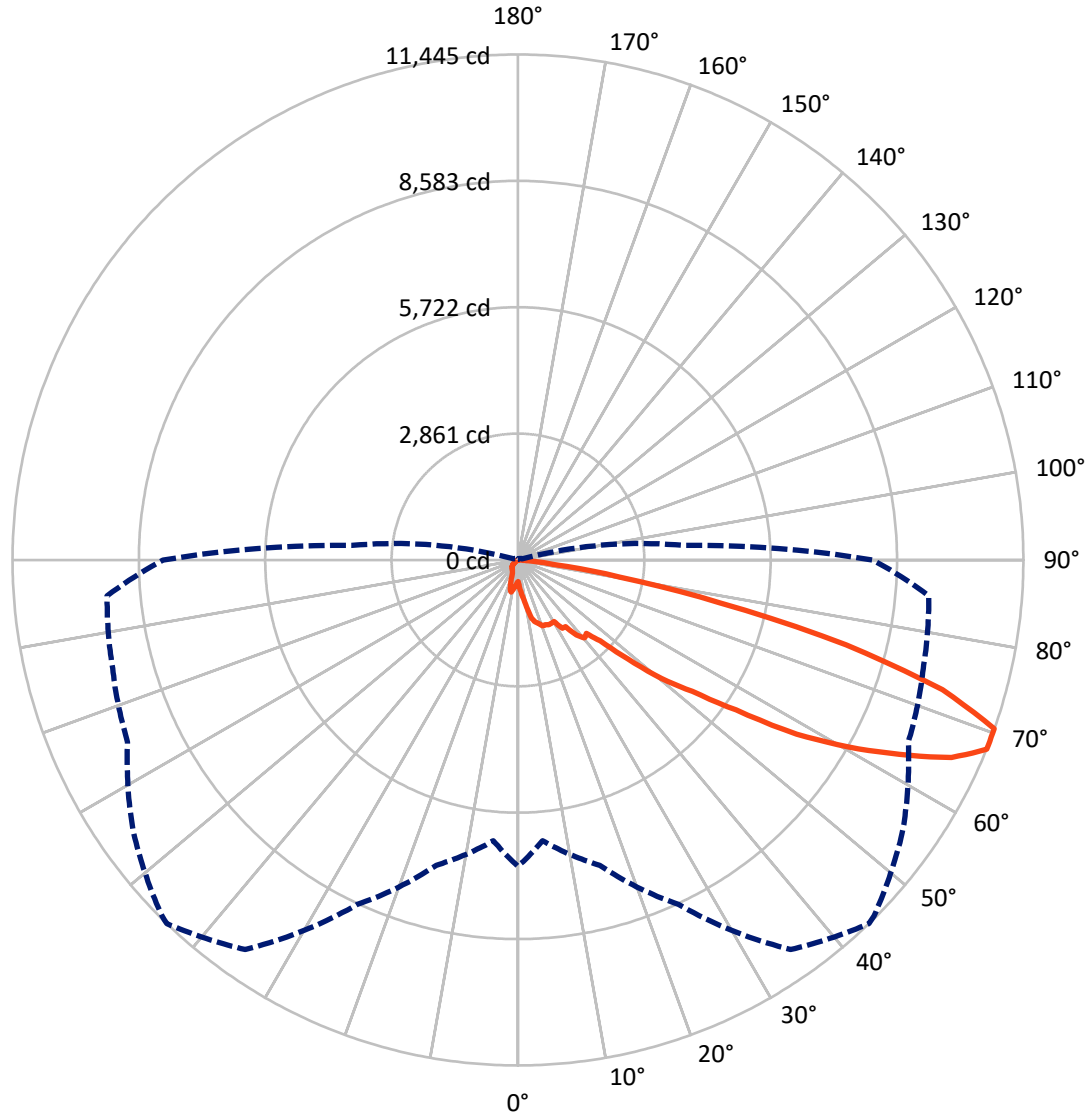
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 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	1464.3	0.0	1464.3
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	12950.7	0.0	12950.7
	% Fixture	89.8	0.0	89.8
Total	Lumens	14415.0	0.0	14415.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.0	0.5
10°-20°	301.4	2.1
20°-30°	533.9	3.7
30°-40°	867.8	6.0
40°-50°	1736.5	12.0
50°-60°	3562.4	24.7
60°-70°	4893.7	33.9
70°-80°	2300.1	16.0
80°-90°	147.3	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°	14415.0	100.0
0°-180°	14415.0	100.0

Coefficient of Utilization

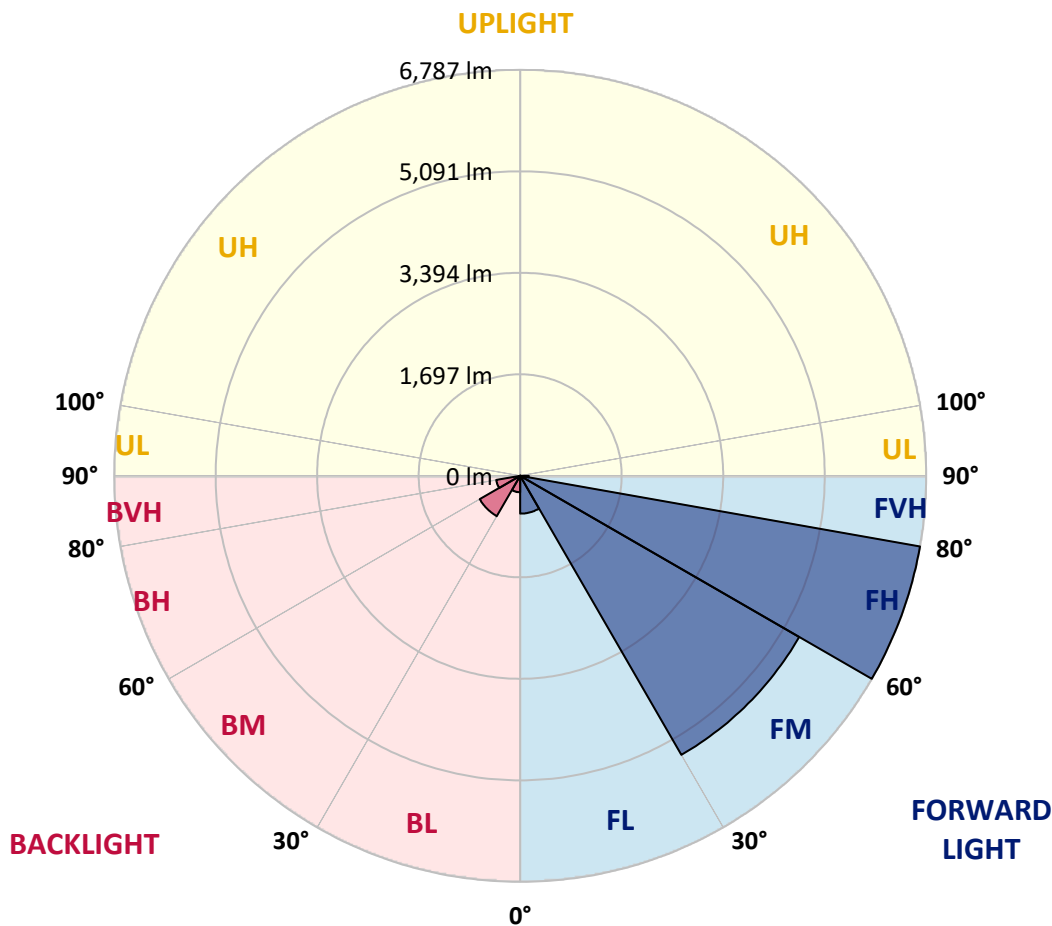


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	632.3	4.4			
FM (30°-60°)	5386.6	37.4			
FH (60°-80°)	6787.5	47.1			G3/7500
FVH (80°-90°)	144.3	1.0			G2/225
BL (0°-30°)	274.9	1.9	B1/500		
BM (30°-60°)	780.0	5.4	B1/1000		
BH (60°-80°)	406.3	2.8	B1/500		G1/500
BVH (80°-90°)	3.0	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-G3
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	485.7	485.7	485.7	485.7	485.7	485.7	485.7	485.7	485.7	485.7	485.7
2.5°	617.6	597.7	569.1	575.5	578.7	587.4	588.2	577.1	545.3	536.5	575.5
5°	865.6	817.1	808.4	790.1	753.5	733.7	728.9	748.8	723.3	715.4	725.7
7.5°	1105.7	1064.3	1019.0	994.4	918.1	871.2	868.8	876.7	881.5	853.7	868.0
10°	1265.4	1220.1	1210.6	1152.6	1086.6	1075.5	1070.7	1040.5	1015.9	995.2	926.0
12.5°	1410.1	1409.3	1426.8	1343.3	1333.0	1344.1	1340.2	1232.1	1207.4	1120.8	1100.9
15°	1602.5	1650.2	1574.7	1504.7	1415.7	1453.8	1443.5	1374.3	1357.6	1298.8	1213.8
17.5°	1802.0	1814.7	1688.3	1581.0	1558.0	1507.9	1518.2	1493.6	1409.3	1456.2	1372.0
20°	1806.8	1834.6	1699.4	1522.2	1592.9	1590.5	1591.3	1567.5	1456.2	1565.9	1488.8
22.5°	1873.5	1805.2	1679.6	1566.7	1579.4	1591.3	1604.1	1574.7	1550.8	1577.8	1592.1
25°	1846.5	1819.5	1698.7	1623.9	1612.0	1621.5	1624.7	1662.1	1647.0	1712.2	1676.4
27.5°	1916.4	1877.5	1661.3	1674.8	1632.7	1621.5	1602.5	1727.3	1771.8	1720.1	1815.5
30°	2036.5	2030.9	1725.7	1745.5	1713.0	1615.2	1666.1	1829.0	1884.7	1852.9	1968.9
32.5°	2224.1	2243.1	1914.1	1785.3	1802.0	1845.7	1826.6	1829.0	1969.7	2040.4	2132.7
35°	2490.3	2480.0	2097.7	1936.3	1848.9	1856.0	1883.1	2012.6	2194.7	2189.9	2287.7
37.5°	3013.4	2900.5	2422.8	2090.5	2116.8	2152.5	2132.7	2306.7	2324.2	2330.6	2564.3
40°	3784.4	3634.2	2935.5	2415.6	2162.9	2321.0	2311.5	2354.4	2471.3	2515.0	2856.0
42.5°	4800.3	4598.4	3837.7	3013.4	2385.4	2276.5	2335.3	2416.4	2809.1	2933.9	3307.5
45°	5922.6	5514.1	4737.5	3865.5	2943.4	2605.6	2650.1	2801.1	3345.6	3552.3	3964.8
47.5°	6649.9	6290.7	5628.5	4620.6	3525.3	3348.0	3352.0	3384.6	3976.0	4359.1	4912.3
50°	7281.9	6899.5	6285.1	5409.9	4554.6	4219.2	4142.9	3992.7	4778.8	5302.6	5916.3
52.5°	8173.7	7727.0	6941.7	6336.0	5728.7	4938.6	4911.5	4962.4	5725.5	6276.3	6945.6
55°	8978.1	8435.2	7685.7	7304.1	7067.2	5995.8	6018.8	6103.9	6940.9	7232.6	7861.3
57.5°	9333.4	8745.2	8359.7	8188.0	8061.6	7440.0	7362.1	7311.3	7899.5	8010.8	8820.7
60°	9566.3	9006.7	8831.9	8871.6	9254.8	8595.0	8524.3	8228.6	8692.8	8784.2	9680.8
62.5°	9419.3	8909.0	8946.3	9277.8	10128.3	9694.3	9490.0	8995.6	9341.4	9415.3	10298.4
65°	8493.3	7961.5	8441.6	9243.6	10794.4	10784.1	10689.5	9703.9	9700.7	9795.3	10346.1
67.5°	6937.7	6379.7	7156.3	8603.0	10766.6	11444.6	11400.1	10643.4	9752.3	9499.6	9336.6
70°	4823.3	4339.2	5220.0	7104.6	9807.2	11439.9	11368.3	11274.5	9343.8	8176.9	7238.9
72.5°	2506.2	2240.0	3060.3	4895.6	7817.6	10051.2	10287.3	10133.1	7978.2	5940.9	4262.9
75°	851.3	763.9	1262.3	2598.5	5196.9	7675.3	7951.9	7795.4	5418.7	3187.5	1685.9
77.5°	329.9	306.8	452.3	1054.8	2607.2	4677.1	4977.5	4817.7	2906.1	1167.7	396.6
80°	187.6	181.2	249.6	475.3	1149.4	2326.6	2538.0	2302.0	1047.6	393.5	103.3
82.5°	79.5	81.9	139.1	256.7	577.9	821.1	915.7	835.4	438.8	269.5	38.2
85°	17.5	21.5	66.0	143.1	242.4	234.5	245.6	272.6	269.5	197.9	16.7
87.5°	0.0	0.0	20.7	38.9	58.0	38.2	30.2	53.3	82.7	79.5	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°	485.7	485.7	485.7	485.7	485.7	485.7	485.7	485.7	485.7	485.7	485.7
2.5°	582.6	574.7	524.6	521.4	524.6	515.9	515.1	496.8	498.4	539.7	542.9
5°	725.7	686.0	643.1	629.5	616.8	588.2	604.1	604.1	604.1	630.3	638.3
7.5°	855.3	802.0	741.6	690.7	641.5	605.7	630.3	647.8	658.2	692.3	708.2
10°	914.1	861.6	807.6	735.3	697.1	683.6	655.0	639.9	658.2	651.0	659.7
12.5°	1039.7	992.0	899.0	824.3	795.7	749.6	665.3	606.5	567.5	561.2	559.6
15°	1162.1	1132.7	1007.9	907.7	808.4	701.9	558.0	480.1	438.8	431.6	432.4
17.5°	1317.1	1275.0	1091.4	947.5	779.0	587.4	430.8	364.1	360.9	378.4	380.0
20°	1420.4	1351.3	1133.5	914.9	682.0	444.3	337.0	321.1	346.6	378.4	375.2
22.5°	1519.0	1444.3	1189.1	886.3	528.6	337.0	310.0	311.6	333.1	367.2	376.0
25°	1584.2	1557.2	1257.5	819.5	403.0	291.7	296.5	308.4	326.7	359.3	359.3
27.5°	1780.5	1654.1	1249.5	690.0	310.0	271.8	283.0	298.1	307.6	346.6	350.5
30°	1899.8	1858.4	1290.9	558.0	271.8	246.4	267.9	281.4	287.7	332.3	333.8
32.5°	2046.0	1954.6	1341.0	411.7	252.8	244.8	240.1	250.4	268.7	307.6	310.0
35°	2224.1	2197.0	1269.4	323.5	246.4	228.9	219.4	225.0	236.9	263.1	268.7
37.5°	2587.3	2426.8	1226.5	277.4	246.4	223.4	213.0	198.7	200.3	218.6	228.9
40°	2893.4	2844.1	1106.5	269.5	235.3	215.4	190.0	172.5	160.6	166.1	170.1
42.5°	3455.3	3227.2	951.5	265.5	225.0	194.7	161.4	143.1	124.8	126.4	132.7
45°	4137.3	3645.3	813.2	261.5	217.8	174.1	135.9	114.5	95.4	96.2	102.5
47.5°	5048.3	4255.0	645.4	249.6	205.1	155.0	109.7	87.4	76.3	78.7	84.3
50°	6083.2	4789.9	510.3	231.3	190.0	136.7	89.0	70.7	66.8	69.2	75.5
52.5°	7007.6	5184.2	421.3	214.6	168.5	111.3	74.7	62.8	61.2	62.8	67.6
55°	7829.5	5413.1	352.1	195.5	144.7	89.8	67.6	58.0	57.2	56.4	59.6
57.5°	8600.6	5479.1	275.0	165.3	117.6	77.9	62.8	54.1	52.5	50.1	52.5
60°	9162.5	5366.2	201.9	132.7	96.2	70.7	58.8	48.5	46.1	42.1	43.7
62.5°	9433.6	5057.0	152.6	106.5	81.9	64.4	52.5	42.1	38.9	34.2	35.0
65°	9176.1	4547.5	120.0	89.8	69.9	54.1	44.5	35.8	31.8	27.0	27.0
67.5°	8035.4	3772.5	101.7	77.9	58.8	46.1	36.6	32.6	26.2	22.3	21.5
70°	5898.0	2713.7	87.4	68.4	50.9	39.7	31.0	29.4	25.4	21.5	19.9
72.5°	3328.9	1535.7	74.7	60.4	42.9	33.4	26.2	27.0	24.6	19.9	18.3
75°	1270.2	517.5	62.0	50.1	35.0	25.4	22.3	22.3	22.3	16.7	14.3
77.5°	314.8	131.9	49.3	40.5	27.8	16.7	18.3	19.1	19.1	14.3	10.3
80°	86.6	44.5	29.4	29.4	19.9	9.5	12.7	12.7	10.3	4.8	0.0
82.5°	31.8	16.7	10.3	12.7	8.7	3.2	4.8	3.2	2.4	0.0	0.0
85°	13.5	8.7	6.4	7.2	4.0	0.0	0.8	1.6	0.0	0.0	0.0
87.5°	5.6	4.0	3.2	3.2	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)