

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: P367971

Luminaire Tested: **MSA-SA3C-740-U-SL4-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367971
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-21)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-740-U-SL4-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15057 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

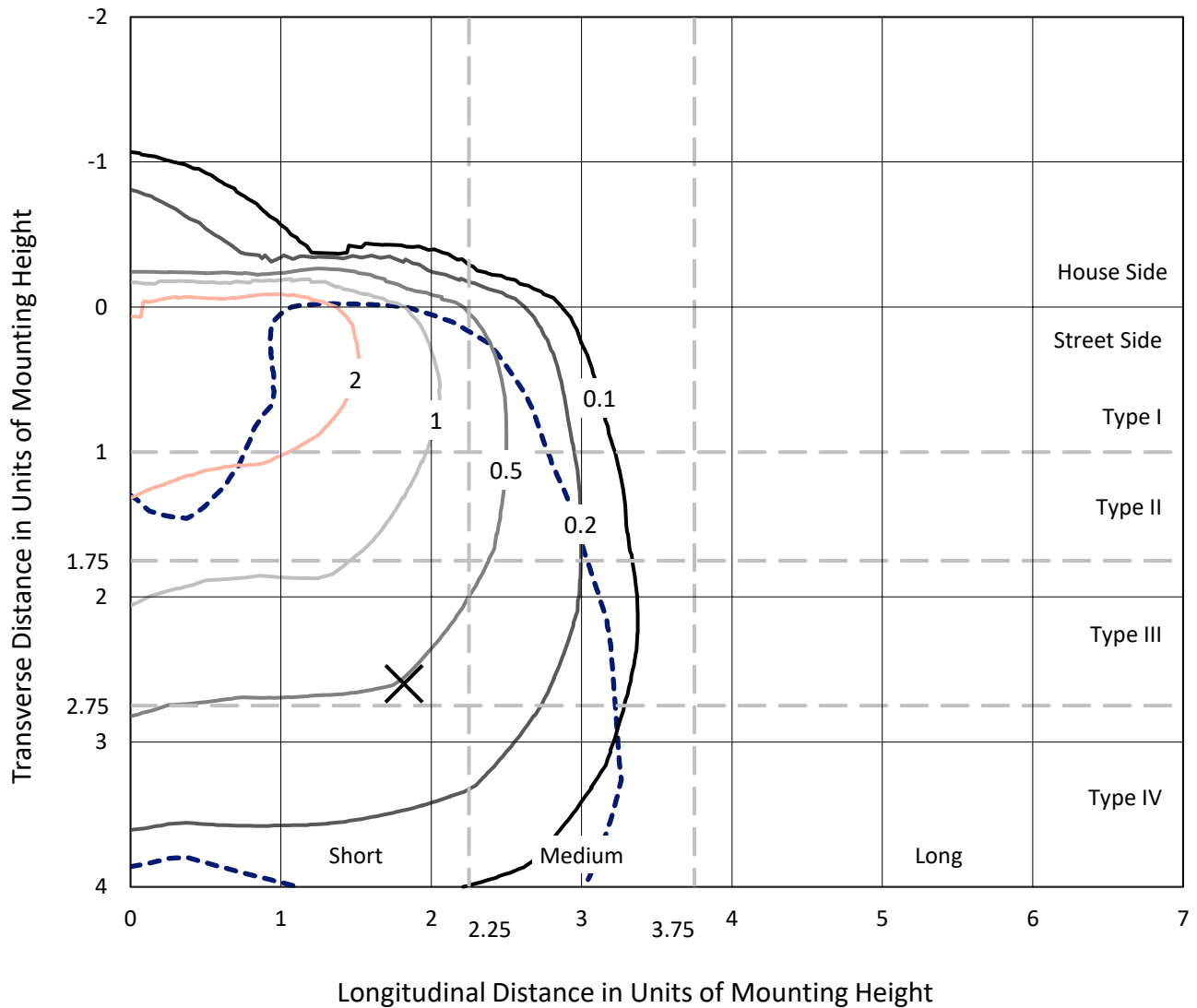
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

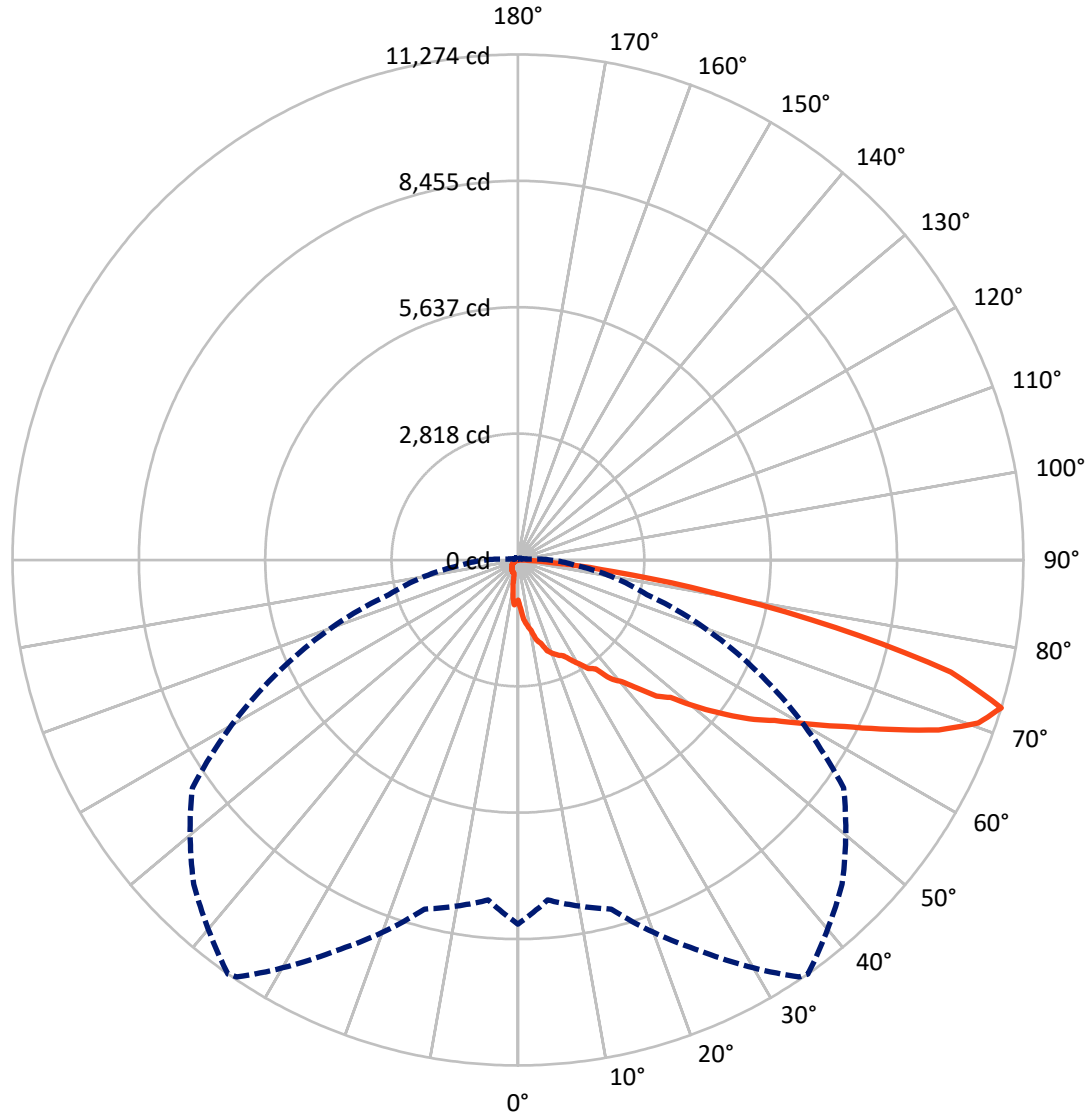
✕ Max cd
 - - - 1/2 Max cd



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 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1174.4	0.0	1174.4
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	13882.6	0.0	13882.6
	% Fixture	92.2	0.0	92.2
Total	Lumens	15057.0	0.0	15057.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.4	0.8
10°-20°	385.3	2.6
20°-30°	701.7	4.7
30°-40°	1210.4	8.0
40°-50°	2151.7	14.3
50°-60°	3210.8	21.3
60°-70°	4102.2	27.2
70°-80°	2854.0	19.0
80°-90°	326.5	2.2
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°	15057.0	100.0
0°-180°	15057.0	100.0

Coefficient of Utilization



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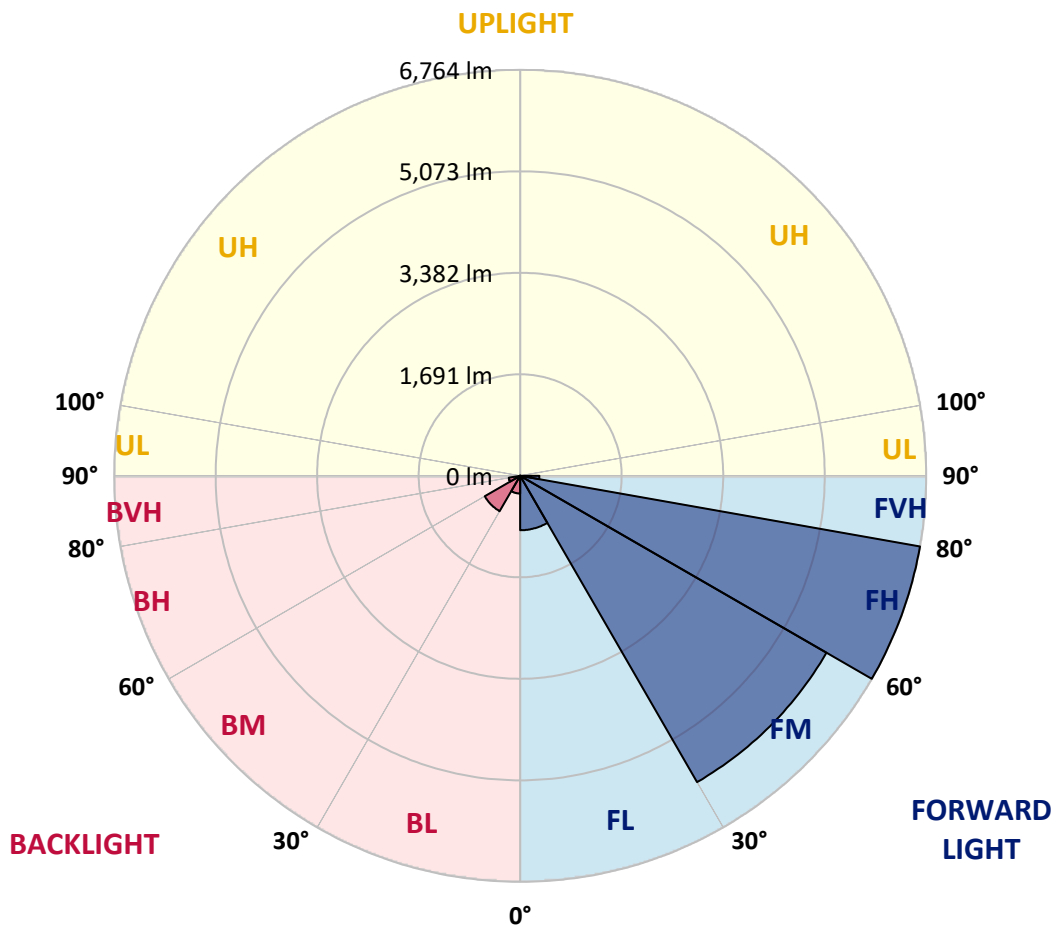
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	906.1	6.0			
FM (30°-60°)	5891.9	39.1			
FH (60°-80°)	6763.6	44.9			G3/7500
FVH (80°-90°)	321.0	2.1			G3/500
BL (0°-30°)	295.4	2.0	B1/500		
BM (30°-60°)	681.0	4.5	B1/1000		
BH (60°-80°)	192.5	1.3	B1/500		G1/500
BVH (80°-90°)	5.5	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°	34°	35°	45°	55°	65°	75°	85°
0°	896.9	896.9	896.9	896.9	896.9	896.9	896.9	896.9	896.9	896.9	896.9
2.5°	1141.4	1096.8	1024.1	1029.4	1062.0	1068.8	1078.6	1052.9	1030.2	990.0	1068.0
5°	1462.4	1398.0	1357.1	1344.3	1325.4	1326.9	1280.7	1297.4	1292.8	1322.3	1357.9
7.5°	1643.3	1607.7	1556.2	1541.8	1472.2	1464.6	1407.9	1484.3	1491.9	1481.3	1539.6
10°	1715.2	1668.2	1674.3	1620.6	1585.7	1594.8	1603.9	1610.0	1619.8	1629.6	1558.5
12.5°	1757.6	1765.9	1848.4	1792.4	1827.2	1827.2	1888.5	1823.4	1825.7	1754.5	1766.6
15°	1948.3	1994.5	1957.4	1956.6	1918.8	1928.6	1999.8	1948.3	1974.8	1953.6	1871.8
17.5°	2187.5	2196.6	2126.2	2095.1	2129.2	2130.0	2099.7	2097.4	2005.1	2161.0	2061.8
20°	2263.9	2315.4	2215.5	2094.4	2235.9	2229.1	2226.8	2191.3	2037.6	2254.1	2172.3
22.5°	2472.1	2398.7	2330.5	2251.1	2306.3	2306.3	2298.0	2220.0	2160.2	2245.8	2280.6
25°	2537.2	2546.3	2457.7	2432.0	2433.5	2365.4	2359.3	2326.0	2268.5	2414.6	2344.9
27.5°	2761.2	2757.4	2544.7	2616.7	2525.1	2525.8	2358.5	2433.5	2443.3	2422.9	2500.8
30°	2981.5	3042.8	2721.9	2812.7	2716.6	2687.8	2524.3	2590.9	2608.3	2584.9	2683.3
32.5°	3262.3	3352.4	3040.5	2951.2	2804.4	2886.1	2773.3	2615.9	2702.2	2911.8	2967.1
35°	3559.8	3603.7	3271.4	3146.5	2980.7	2980.0	2976.2	2989.1	3084.4	3320.6	3367.5
37.5°	4094.1	3990.5	3690.0	3403.8	3440.9	3358.4	3300.9	3361.5	3460.6	3849.7	4050.2
40°	4392.4	4317.4	3894.3	3724.8	3540.8	3571.1	3727.0	3720.2	3984.4	4391.6	4692.1
42.5°	4682.3	4611.1	4194.8	4057.8	3821.7	3904.2	3972.3	4058.6	4599.8	5256.8	5421.8
45°	4940.4	4731.5	4437.8	4443.1	4320.5	4330.3	4450.7	4530.1	5312.8	5986.4	6102.2
47.5°	5096.3	4924.5	4642.9	4637.6	4630.0	4583.9	5150.8	5223.5	5881.2	6681.3	6691.9
50°	5315.8	5100.8	4854.1	4858.6	5033.5	5131.1	5807.8	5800.2	6430.0	7261.1	7016.6
52.5°	5589.1	5326.4	5054.7	5256.8	5527.0	5685.9	6235.5	6459.5	7019.6	7625.2	7143.8
55°	5938.7	5610.2	5348.4	5607.2	6196.9	6258.2	6654.0	7127.1	7662.2	7996.8	7184.6
57.5°	6349.0	5956.9	5745.0	6162.0	6750.2	6751.7	7263.3	7838.6	8056.6	8148.2	7138.5
60°	6791.0	6333.9	6120.4	6495.8	7360.2	7422.3	7940.8	8231.4	8457.0	8224.6	7056.0
62.5°	7180.1	6675.2	6509.5	6950.7	8029.3	8176.2	8531.2	8489.6	8746.1	8320.8	6846.3
65°	7643.3	7117.3	7008.3	7660.0	8902.8	9104.9	9194.2	8947.5	8843.0	8246.6	6300.6
67.5°	8102.0	7610.0	7607.0	8446.4	10048.0	10117.7	10023.8	9593.1	8730.2	7592.6	5300.7
70°	8425.2	7896.9	8096.0	9307.8	11088.8	10893.5	10498.4	9898.2	7915.8	5819.2	3462.9
72.5°	8121.7	7612.3	8061.1	9614.3	11217.5	11273.5	10223.6	8866.5	5881.2	2976.2	1253.5
75°	6171.9	5860.0	6999.2	8529.7	9959.5	9972.3	8533.5	6253.6	2896.0	808.4	346.7
77.5°	3108.6	3009.5	4430.2	6055.3	7266.4	7245.2	5863.1	3350.1	931.8	268.7	174.8
80°	1573.6	1494.1	1885.5	3266.8	4315.2	4347.0	3347.8	1500.2	470.0	146.1	121.1
82.5°	966.6	917.4	1031.7	1478.3	2094.4	2145.1	1270.1	949.9	291.4	86.3	110.5
85°	187.0	196.8	592.7	740.3	836.4	816.7	376.2	781.9	87.8	51.5	80.2
87.5°	0.0	3.0	137.0	241.5	242.2	215.0	85.5	173.3	12.1	14.4	9.8
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°	896.9	896.9	896.9	896.9	896.9	896.9	896.9	896.9	896.9	896.9	896.9
2.5°	1080.9	1069.5	974.9	964.3	966.6	950.7	945.4	912.1	903.8	955.2	964.3
5°	1342.8	1267.1	1179.3	1147.5	1098.3	1015.0	1002.9	981.7	958.3	967.3	960.5
7.5°	1503.2	1402.6	1308.7	1141.4	1002.9	881.8	862.1	825.8	789.5	790.2	813.7
10°	1529.0	1444.2	1314.8	1111.2	953.0	801.6	669.9	574.5	531.4	492.8	504.1
12.5°	1678.1	1599.4	1360.9	1102.1	880.3	644.1	471.6	378.5	337.6	324.0	322.4
15°	1797.7	1735.6	1439.7	1074.1	719.1	453.4	337.6	310.3	302.8	315.6	311.8
17.5°	1975.5	1863.5	1431.3	958.3	548.0	344.4	311.1	307.3	316.4	324.0	326.2
20°	2053.5	1892.3	1374.6	776.6	410.2	315.6	303.5	296.0	312.6	335.3	330.8
22.5°	2132.2	1941.5	1307.9	635.8	330.0	302.0	295.2	289.1	302.0	324.0	329.3
25°	2167.8	2020.2	1233.8	496.5	306.6	286.1	281.6	283.8	294.4	314.1	311.8
27.5°	2347.2	2029.3	1092.2	392.1	296.7	274.8	274.8	280.1	280.1	306.6	304.3
30°	2459.2	2182.9	977.2	330.0	285.4	258.9	267.9	270.2	266.4	295.2	297.5
32.5°	2656.0	2225.3	865.2	302.8	267.2	256.6	255.1	256.6	259.6	287.6	288.4
35°	2958.8	2434.2	712.3	292.2	258.1	245.2	234.6	243.0	250.5	271.0	274.8
37.5°	3550.7	2648.4	580.6	283.8	253.6	234.6	230.9	229.3	243.0	266.4	274.0
40°	4029.8	3027.7	472.3	277.0	244.5	228.6	218.7	219.5	231.6	249.0	260.4
42.5°	4708.0	3301.7	400.4	266.4	231.6	215.7	204.4	211.2	216.5	234.6	242.2
45°	5274.2	3514.4	352.7	259.6	218.7	203.6	194.5	202.1	196.8	205.9	216.5
47.5°	5724.5	3699.8	317.1	243.0	210.4	196.8	185.4	183.2	174.1	176.4	186.2
50°	5972.1	3668.8	287.6	226.3	199.8	190.0	174.1	158.2	146.1	145.3	151.4
52.5°	6059.9	3503.0	263.4	211.9	187.0	174.8	156.7	134.7	122.6	118.8	124.1
55°	6084.1	3264.6	241.5	196.0	174.8	155.9	137.0	113.5	100.7	94.6	99.9
57.5°	6005.4	2897.5	220.3	180.9	160.5	137.8	117.3	93.1	81.0	73.4	78.0
60°	5810.8	2431.2	201.3	162.0	145.3	121.9	99.2	74.9	62.1	55.3	57.5
62.5°	5380.1	1905.9	180.9	144.6	129.4	106.7	83.3	59.0	46.9	40.9	41.6
65°	4724.7	1420.7	157.4	127.9	115.1	92.3	66.6	45.4	35.6	30.3	29.5
67.5°	3764.1	962.8	134.0	110.5	102.2	78.0	53.0	35.6	28.0	24.2	22.7
70°	2212.5	485.2	111.3	95.4	87.8	65.1	41.6	28.8	25.7	22.7	21.2
72.5°	729.7	209.7	87.0	78.7	72.7	52.2	32.5	26.5	25.0	22.0	20.4
75°	254.3	121.1	64.3	60.6	57.5	39.4	27.2	24.2	24.2	21.2	18.9
77.5°	166.5	93.9	47.7	43.9	43.1	28.8	23.5	22.7	21.2	17.4	14.4
80°	138.5	53.0	33.3	31.0	30.3	18.2	18.9	16.7	12.9	7.6	3.0
82.5°	127.9	31.8	17.4	18.9	17.4	6.8	10.6	9.1	6.8	3.0	0.0
85°	74.9	14.4	9.8	9.8	7.6	1.5	5.3	5.3	3.0	0.8	0.0
87.5°	8.3	6.8	5.3	5.3	3.8	0.0	2.3	1.5	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)