

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: P367925

Luminaire Tested: **MSA-SA3C-727-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367925
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-727-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12503 lumens
Efficiency: N/A
Efficacy: 75.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

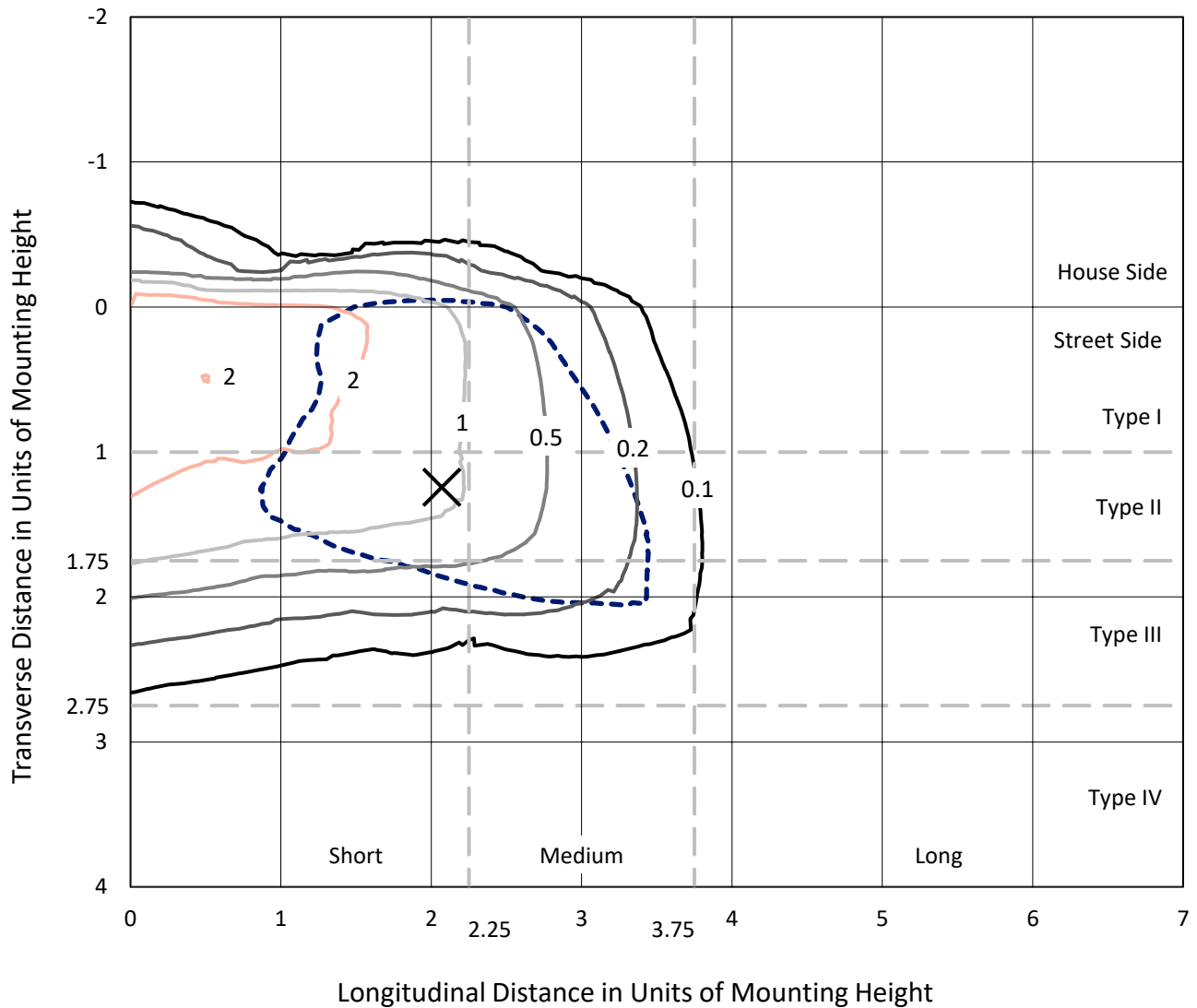
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

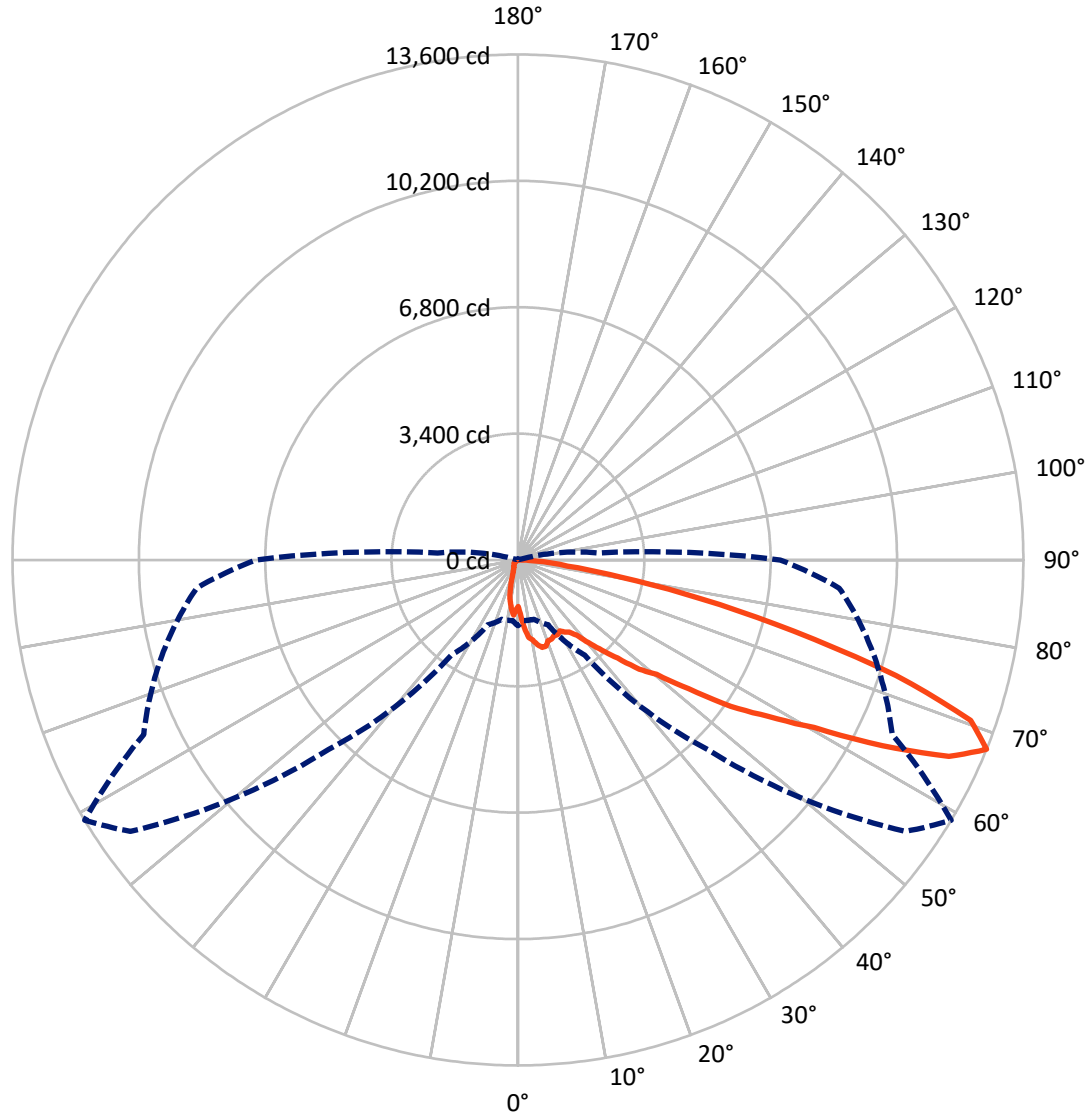
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1063.3	0.0	1063.3
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	11439.7	0.0	11439.7
	% Fixture	91.5	0.0	91.5
Total	Lumens	12503.0	0.0	12503.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.1	1.2
10°-20°	428.3	3.4
20°-30°	637.0	5.1
30°-40°	982.8	7.9
40°-50°	1754.0	14.0
50°-60°	3121.3	25.0
60°-70°	3635.2	29.1
70°-80°	1616.6	12.9
80°-90°	175.6	1.4
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°	12503.0	100.0
0°-180°	12503.0	100.0

Coefficient of Utilization

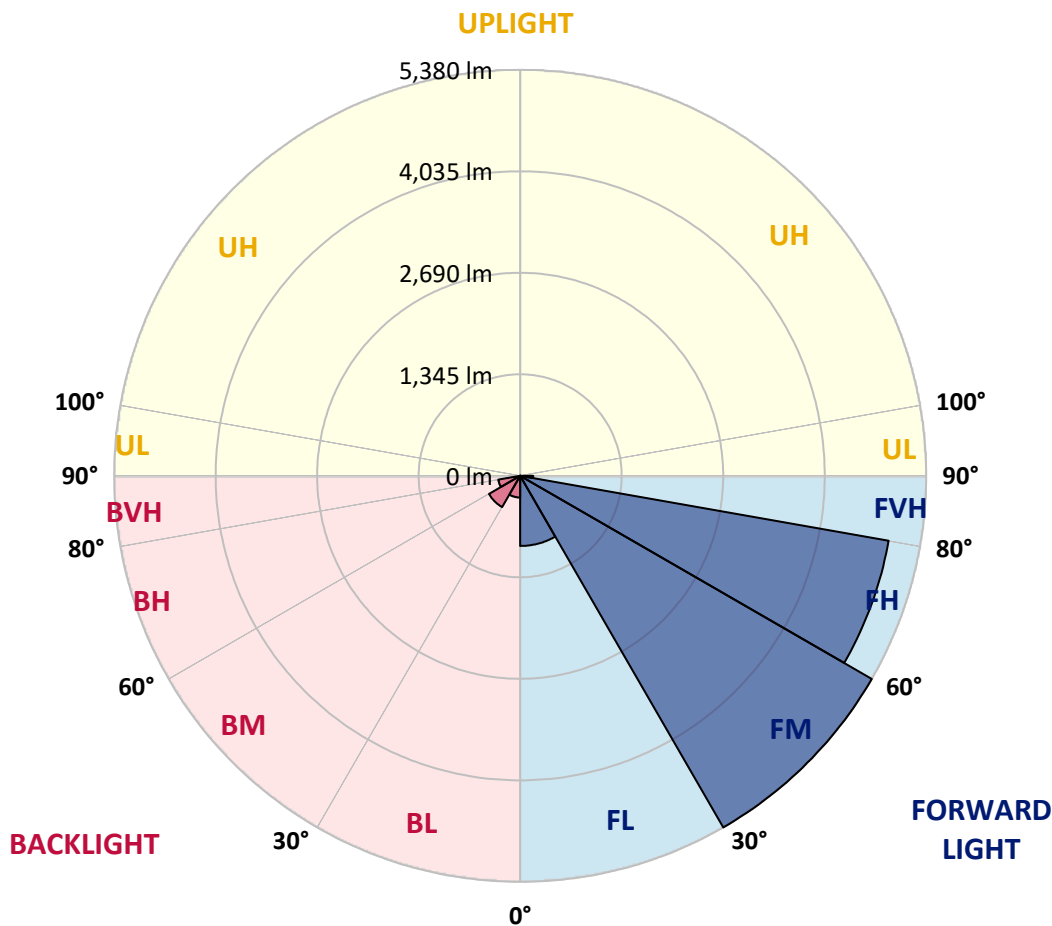


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	929.9	7.4			
FM (30°-60°)	5380.1	43.0			
FH (60°-80°)	4957.3	39.6			G2/5000
FVH (80°-90°)	172.4	1.4			G2/225
BL (0°-30°)	287.5	2.3	B1/500		
BM (30°-60°)	478.1	3.8	B1/1000		
BH (60°-80°)	294.5	2.4	B1/500		G1/500
BVH (80°-90°)	3.1	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-G2
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1251.0	1251.0	1251.0	1251.0	1251.0	1251.0	1251.0	1251.0	1251.0	1251.0	1251.0
2.5°	1630.8	1569.4	1482.0	1508.0	1531.4	1553.6	1516.9	1496.0	1485.8	1395.9	1508.6
5°	2002.4	1925.8	1885.9	1875.8	1850.5	1794.1	1887.8	1846.1	1860.0	1877.7	1914.4
7.5°	2115.8	2080.9	2023.3	2044.8	1948.6	1940.4	2070.2	2106.3	2153.7	2121.4	2165.8
10°	2057.5	1997.4	2024.6	2017.0	2013.2	2098.0	2189.2	2191.1	2262.0	2296.2	2146.1
12.5°	1942.3	1949.3	2046.7	2039.1	2165.8	2335.4	2356.3	2334.2	2450.0	2390.5	2367.7
15°	2018.9	2075.9	2022.1	2040.4	2085.4	2297.4	2371.5	2439.9	2549.4	2584.9	2431.0
17.5°	2111.3	2117.0	2018.9	1996.1	2109.4	2208.2	2382.9	2439.3	2450.0	2760.9	2573.5
20°	2061.3	2110.1	1992.9	1849.2	2025.2	2159.4	2336.7	2319.0	2391.1	2812.8	2605.8
22.5°	2194.3	2124.6	1974.6	1866.3	1925.8	2048.0	2198.1	2313.9	2422.2	2688.7	2647.5
25°	2206.9	2181.6	2048.0	1951.8	1941.7	1972.7	2181.6	2256.3	2426.0	2800.1	2612.1
27.5°	2349.4	2320.2	2046.7	2056.2	1961.3	1865.7	2101.8	2277.2	2495.0	2732.4	2687.4
30°	2533.0	2535.5	2182.9	2212.6	2077.1	1923.3	2167.0	2215.1	2541.8	2840.6	2743.1
32.5°	2719.1	2795.7	2451.9	2294.3	2251.9	2141.7	2086.0	2308.2	2490.5	3025.5	2882.4
35°	3002.1	3054.0	2673.5	2532.3	2365.8	2240.5	2306.3	2386.1	2674.8	3270.5	3065.4
37.5°	3481.3	3387.6	3071.1	2825.4	2785.6	2600.7	2633.6	2562.1	2862.8	3559.2	3427.5
40°	3751.0	3666.2	3337.0	3217.3	2962.8	2991.3	2887.5	2929.3	3135.6	3859.9	3757.3
42.5°	4032.1	3951.0	3662.4	3577.5	3335.1	3217.3	3170.5	3320.5	3554.1	4360.7	4230.2
45°	4314.4	4108.7	3986.5	4028.9	3920.0	3687.1	3632.6	3766.2	4011.2	4976.0	4729.1
47.5°	4552.5	4379.0	4287.2	4267.6	4225.2	4548.7	4327.1	4386.0	4494.2	5520.5	5350.8
50°	4981.7	4810.8	4667.1	4627.2	4833.6	5292.5	4950.7	4836.7	5053.2	6178.2	6071.2
52.5°	5601.5	5383.7	5155.2	5155.8	5545.1	5797.1	5959.2	5759.1	5799.6	6901.8	6854.4
55°	6099.7	5823.1	5633.8	5783.2	6363.7	6504.9	7123.4	6948.0	6895.5	7572.9	7514.7
57.5°	6168.1	5836.4	5746.5	6008.6	6803.1	7704.6	8369.9	7931.9	7851.5	8134.4	8250.3
60°	5530.0	5178.0	5245.7	5667.3	6946.1	8435.8	9514.6	9156.9	8646.0	8792.2	8872.0
62.5°	4124.5	3843.4	4033.3	4591.7	6394.7	8925.8	10839.6	11005.5	9567.7	9286.0	9268.9
65°	2676.0	2500.0	2624.7	3082.5	4839.3	8870.1	12023.4	12742.6	10293.9	9688.6	9393.6
67.5°	1770.1	1636.5	1654.2	1925.2	3129.3	7213.9	12731.2	13600.4	11110.5	9917.2	8678.9
70°	1319.3	1214.2	1220.6	1367.5	1857.5	4757.6	11744.3	12923.7	11408.7	9125.2	7005.0
72.5°	951.5	881.2	940.1	1103.5	1480.1	2515.9	8753.6	10643.3	9948.2	7197.5	4719.6
75°	659.0	612.8	709.0	923.0	1351.0	1561.8	5784.4	7661.5	6972.7	4515.8	2133.5
77.5°	365.3	351.4	490.0	752.1	1226.3	1280.1	3543.3	5034.2	3867.5	1618.8	507.7
80°	159.5	154.5	237.4	564.7	1030.7	1156.6	1994.8	2791.2	1521.3	288.7	164.0
82.5°	68.4	65.8	101.3	340.0	748.9	967.3	1230.1	1343.4	523.6	89.3	93.1
85°	12.0	13.3	40.5	179.2	455.8	491.3	890.7	795.1	263.4	42.4	66.5
87.5°	0.0	0.0	6.3	34.8	85.5	140.5	386.2	278.6	50.0	13.9	11.4
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°	1251.0	1251.0	1251.0	1251.0	1251.0	1251.0	1251.0	1251.0	1251.0	1251.0	1251.0
2.5°	1524.5	1489.0	1354.2	1337.1	1318.7	1291.5	1281.4	1223.1	1215.5	1290.2	1290.2
5°	1897.3	1770.7	1642.2	1540.9	1450.4	1325.0	1289.6	1252.9	1223.1	1215.5	1238.9
7.5°	2094.2	1939.8	1737.8	1480.1	1271.2	1089.5	1013.6	960.4	900.9	918.6	928.1
10°	2083.5	1919.5	1661.8	1330.7	1099.0	898.3	705.3	592.6	529.9	498.9	495.1
12.5°	2189.2	2034.7	1610.6	1211.7	916.1	638.8	443.8	363.4	317.2	317.8	314.0
15°	2250.6	2082.2	1551.0	1061.0	645.1	410.9	307.7	290.0	283.6	290.6	286.8
17.5°	2358.9	2132.2	1416.2	836.3	443.8	310.2	283.0	276.0	284.3	298.8	295.0
20°	2350.6	2045.5	1224.4	589.4	327.9	279.2	267.8	257.0	274.1	289.3	286.8
22.5°	2343.0	1960.6	1043.9	434.9	274.1	254.5	245.0	240.6	249.4	267.2	271.0
25°	2275.9	1918.9	861.0	326.7	248.2	231.1	226.6	222.8	226.0	240.6	239.9
27.5°	2358.2	1813.1	664.7	274.1	229.8	209.5	205.8	199.4	193.1	205.8	207.7
30°	2341.1	1827.7	521.0	241.2	211.4	184.2	185.5	172.2	160.8	172.2	172.2
32.5°	2403.2	1721.3	417.2	219.0	193.1	173.5	157.6	143.7	135.5	142.4	143.7
35°	2493.7	1725.8	326.7	205.1	177.3	154.5	135.5	121.6	114.0	117.1	119.0
37.5°	2796.9	1695.4	272.9	194.4	171.6	143.1	123.5	105.1	100.0	103.8	105.7
40°	2994.5	1776.4	240.6	188.7	157.0	131.7	105.7	92.4	88.0	89.9	93.1
42.5°	3366.7	1821.4	224.7	182.3	143.7	112.7	90.5	82.9	76.6	79.1	81.7
45°	3764.9	1898.0	212.7	175.4	133.6	98.8	79.8	73.4	65.2	65.8	68.4
47.5°	4254.3	2080.3	198.8	163.3	119.7	89.9	70.9	61.4	53.8	53.2	56.3
50°	4911.4	2324.0	186.1	148.1	110.8	82.3	62.0	50.0	43.7	41.8	44.3
52.5°	5612.9	2639.3	172.8	137.4	100.0	72.2	53.2	40.5	34.8	33.6	35.5
55°	6308.0	2941.9	160.2	130.4	88.6	62.0	44.9	33.6	28.5	27.2	28.5
57.5°	7100.0	3269.2	143.7	116.5	77.9	53.8	37.4	27.9	23.4	22.2	22.8
60°	7696.3	3384.4	129.8	101.3	67.7	47.5	31.7	22.2	19.0	17.7	18.4
62.5°	7979.3	3196.4	116.5	88.0	59.5	41.2	26.6	18.4	15.8	14.6	14.6
65°	7905.9	2779.9	103.2	75.3	51.3	34.2	20.9	15.8	13.9	12.0	11.4
67.5°	7057.6	2175.3	88.0	63.3	43.0	27.9	17.7	15.2	12.7	11.4	9.5
70°	5597.1	1575.1	71.5	52.5	36.1	22.8	13.9	13.9	12.0	11.4	8.9
72.5°	3668.7	991.4	58.2	42.4	29.8	17.7	10.8	12.7	11.4	11.4	8.2
75°	1589.7	354.5	46.8	34.2	24.7	12.0	9.5	11.4	12.0	11.4	9.5
77.5°	372.3	110.2	36.7	27.2	20.3	8.2	9.5	11.4	12.0	10.8	8.2
80°	139.9	46.8	24.1	17.7	15.8	5.1	8.2	7.0	6.3	4.4	1.3
82.5°	84.8	19.6	12.7	8.9	7.6	1.3	3.8	2.5	1.3	1.3	0.0
85°	60.1	9.5	7.0	6.3	3.8	0.0	0.6	0.0	0.0	0.6	0.0
87.5°	8.2	2.5	3.2	3.2	2.5	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)