

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: P597075

Luminaire Tested: **MSA-SA3D-835-U-SL3-HSS**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597075  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA3D-835-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: 13475 lumens  
Efficiency: N/A  
Efficacy: 70.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G3

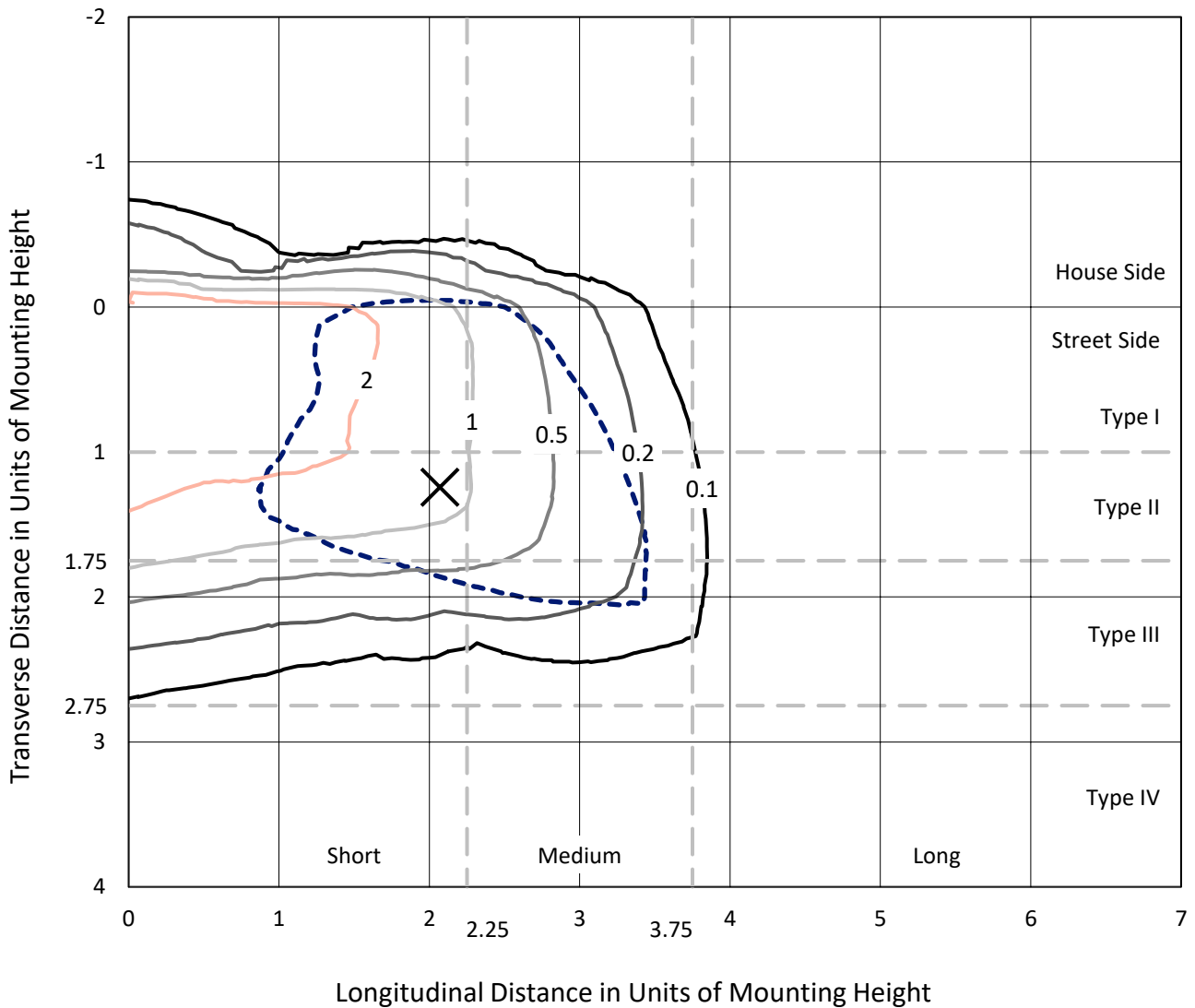
Input Watts (W): 192  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

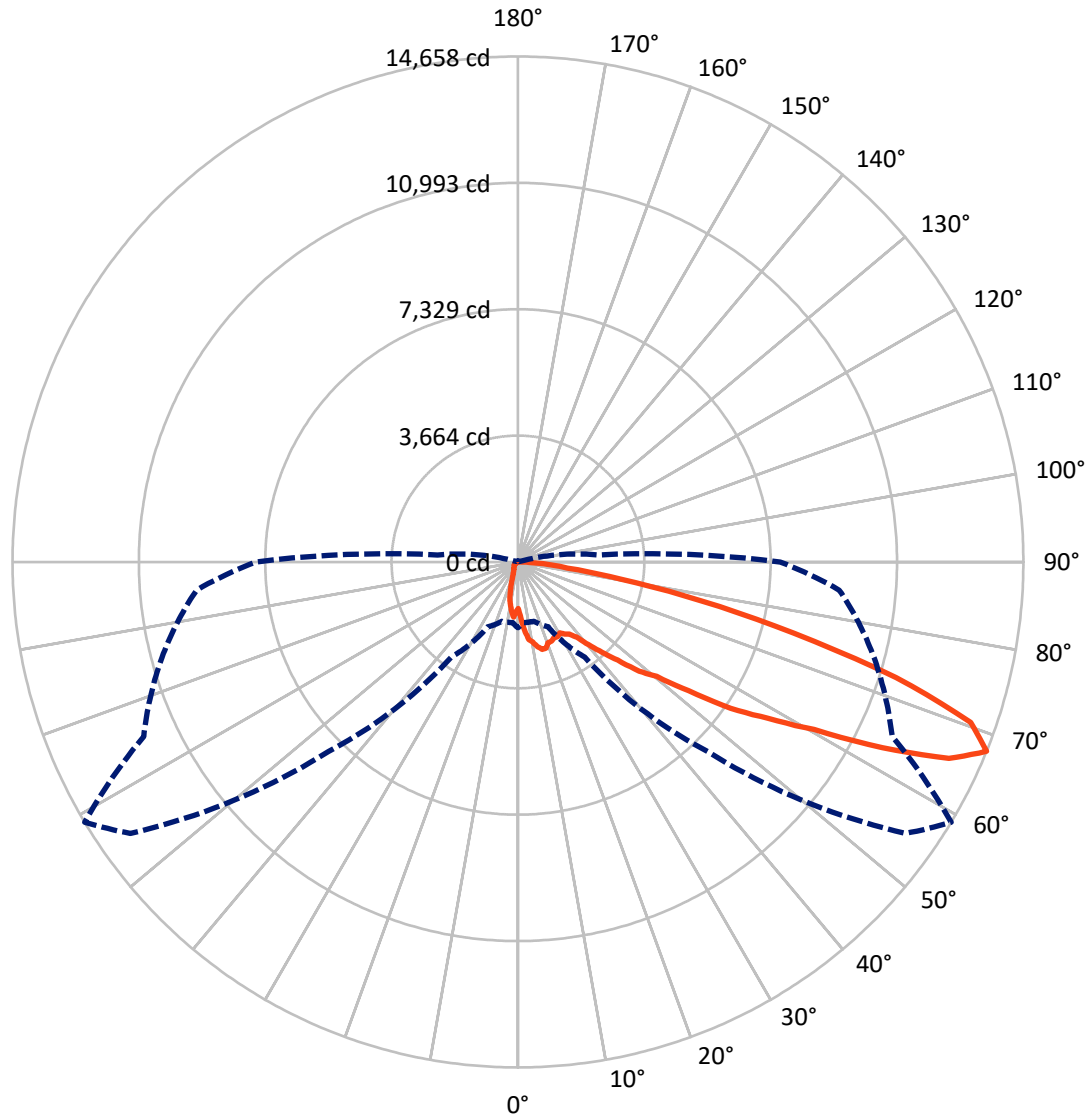
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 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
<b>House Side</b>	Lumens	1146.0	0.0	1146.0
	% Fixture	8.5	0.0	8.5
<b>Street Side</b>	Lumens	12329.0	0.0	12329.0
	% Fixture	91.5	0.0	91.5
<b>Total</b>	Lumens	13475.0	0.0	13475.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.9	1.2
10°-20°	461.6	3.4
20°-30°	686.6	5.1
30°-40°	1059.2	7.9
40°-50°	1890.4	14.0
50°-60°	3364.0	25.0
60°-70°	3917.8	29.1
70°-80°	1742.3	12.9
80°-90°	189.2	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°	13475.0	100.0
0°-180°	13475.0	100.0

**Coefficient of Utilization**

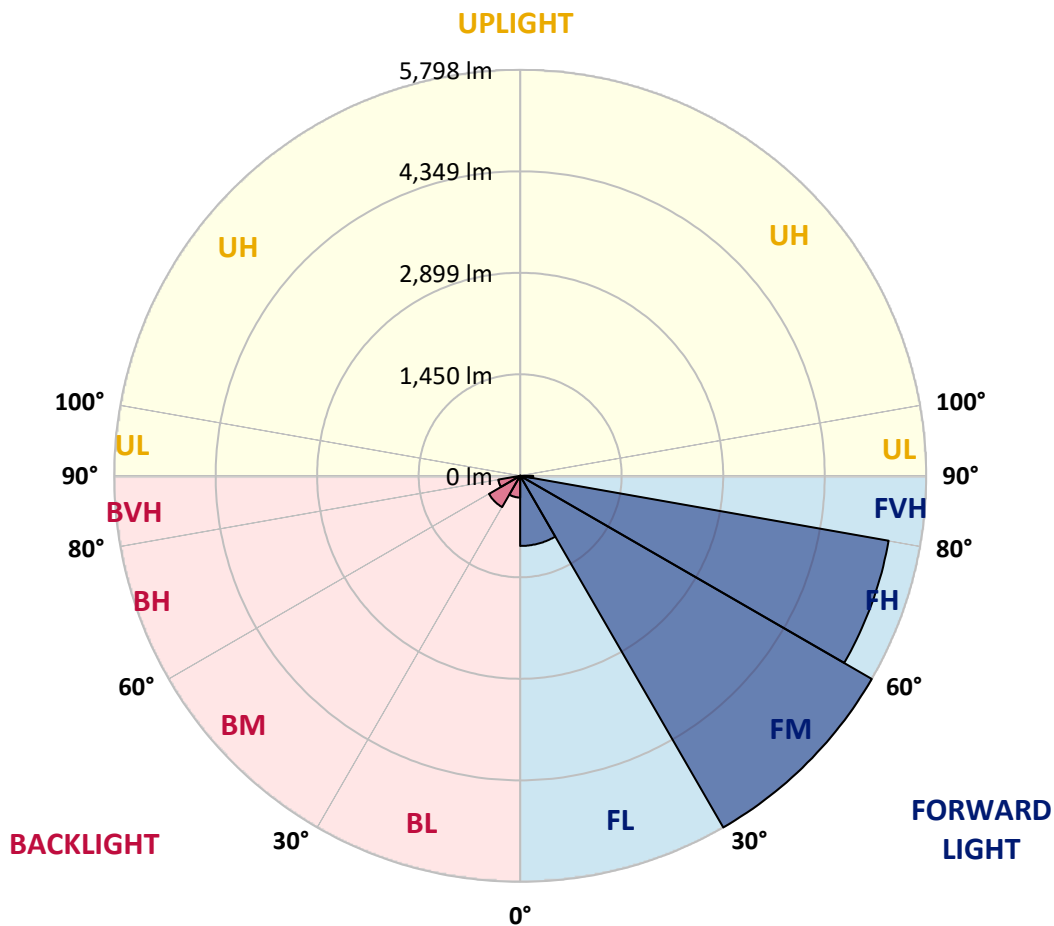


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1002.2	7.4			
FM (30°-60°)	5798.3	43.0			
FH (60°-80°)	5342.7	39.6			G3/7500
FVH (80°-90°)	185.9	1.4			G2/225
BL (0°-30°)	309.9	2.3	B1/500		
BM (30°-60°)	515.3	3.8	B1/1000		
BH (60°-80°)	317.4	2.4	B1/500		G1/500
BVH (80°-90°)	3.4	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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1348.2	1348.2	1348.2	1348.2	1348.2	1348.2	1348.2	1348.2	1348.2	1348.2	1348.2
2.5°	1757.6	1691.4	1597.3	1625.2	1650.5	1674.4	1634.8	1612.3	1601.3	1504.5	1625.9
5°	2158.1	2075.5	2032.6	2021.6	1994.4	1933.6	2034.6	1989.6	2004.6	2023.7	2063.3
7.5°	2280.2	2242.7	2180.6	2203.8	2100.1	2091.2	2231.1	2270.0	2321.2	2286.4	2334.1
10°	2217.5	2152.6	2182.0	2173.8	2169.7	2261.1	2359.4	2361.4	2437.8	2474.7	2313.0
12.5°	2093.3	2100.8	2205.9	2197.7	2334.1	2517.0	2539.5	2515.6	2640.5	2576.3	2551.8
15°	2175.8	2237.2	2179.3	2199.0	2247.5	2476.1	2555.9	2629.6	2747.6	2785.8	2620.0
17.5°	2275.5	2281.6	2175.8	2151.3	2273.4	2379.8	2568.2	2628.9	2640.5	2975.5	2773.5
20°	2221.6	2274.1	2147.9	1993.0	2182.7	2327.3	2518.4	2499.3	2577.0	3031.4	2808.3
22.5°	2364.8	2289.8	2128.1	2011.4	2075.5	2207.2	2368.9	2493.8	2610.5	2897.7	2853.4
25°	2378.5	2351.2	2207.2	2103.5	2092.6	2126.0	2351.2	2431.7	2614.6	3017.8	2815.2
27.5°	2532.0	2500.6	2205.9	2216.1	2113.8	2010.7	2265.2	2454.2	2688.9	2944.8	2896.3
30°	2729.9	2732.6	2352.6	2384.6	2238.6	2072.8	2335.5	2387.4	2739.4	3061.5	2956.4
32.5°	2930.5	3013.0	2642.5	2472.6	2426.9	2308.2	2248.2	2487.7	2684.2	3260.7	3106.5
35°	3235.4	3291.4	2881.3	2729.2	2549.7	2414.6	2485.6	2571.6	2882.7	3524.7	3303.7
37.5°	3751.9	3651.0	3309.8	3045.1	3002.1	2802.9	2838.4	2761.3	3085.3	3835.9	3694.0
40°	4042.6	3951.2	3596.4	3467.4	3193.1	3223.8	3112.0	3157.0	3379.4	4160.0	4049.4
42.5°	4345.5	4258.2	3947.1	3855.7	3594.3	3467.4	3416.9	3578.6	3830.4	4699.7	4559.1
45°	4649.8	4428.1	4296.4	4342.1	4224.8	3973.7	3915.0	4059.0	4323.0	5362.8	5096.8
47.5°	4906.4	4719.4	4620.5	4599.4	4553.6	4902.3	4663.5	4726.9	4843.6	5949.6	5766.8
50°	5369.0	5184.8	5029.9	4986.9	5209.3	5704.0	5335.6	5212.7	5446.1	6658.5	6543.2
52.5°	6037.0	5802.2	5555.9	5556.6	5976.2	6247.8	6422.5	6206.8	6250.5	7438.4	7387.2
55°	6573.9	6275.8	6071.8	6232.8	6858.4	7010.6	7677.2	7488.2	7431.6	8161.6	8098.9
57.5°	6647.6	6290.1	6193.2	6475.7	7332.0	8303.5	9020.6	8548.5	8461.8	8766.8	8891.7
60°	5959.9	5580.5	5653.5	6107.9	7486.2	9091.6	10254.2	9868.7	9318.1	9475.7	9561.7
62.5°	4445.2	4142.2	4346.9	4948.7	6891.9	9619.7	11682.3	11861.0	10311.5	10007.9	9989.5
65°	2884.1	2694.4	2828.8	3322.1	5215.5	9559.6	12958.2	13733.3	11094.1	10441.9	10123.9
67.5°	1907.7	1763.7	1782.8	2074.9	3372.6	7774.8	13721.0	14657.8	11974.3	10688.2	9353.6
70°	1421.9	1308.6	1315.5	1473.8	2001.9	5127.5	12657.3	13928.4	12295.7	9834.6	7549.6
72.5°	1025.5	949.8	1013.2	1189.2	1595.2	2711.4	9434.1	11470.8	10721.6	7757.0	5086.5
75°	710.3	660.5	764.2	994.8	1456.0	1683.2	6234.1	8257.1	7514.8	4866.8	2299.3
77.5°	393.7	378.7	528.1	810.6	1321.6	1379.6	3818.8	5425.6	4168.1	1744.6	547.2
80°	171.9	166.5	255.9	608.6	1110.8	1246.6	2149.9	3008.2	1639.6	311.1	176.7
82.5°	73.7	71.0	109.2	366.4	807.2	1042.5	1325.7	1447.8	564.3	96.2	100.3
85°	13.0	14.3	43.7	193.1	491.3	529.5	960.0	857.0	283.8	45.7	71.6
87.5°	0.0	0.0	6.8	37.5	92.1	151.5	416.2	300.2	53.9	15.0	12.3
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°	1348.2	1348.2	1348.2	1348.2	1348.2	1348.2	1348.2	1348.2	1348.2	1348.2	1348.2
2.5°	1643.0	1604.8	1459.4	1441.0	1421.2	1391.9	1381.0	1318.2	1310.0	1390.5	1390.5
5°	2044.8	1908.4	1769.9	1660.7	1563.1	1428.0	1389.8	1350.3	1318.2	1310.0	1335.3
7.5°	2257.0	2090.6	1872.9	1595.2	1370.1	1174.2	1092.4	1035.0	970.9	990.0	1000.2
10°	2245.4	2068.7	1791.0	1434.2	1184.5	968.2	760.1	638.6	571.1	537.6	533.6
12.5°	2359.4	2192.9	1735.8	1305.9	987.3	688.4	478.3	391.6	341.8	342.5	338.4
15°	2425.6	2244.1	1671.6	1143.5	695.3	442.8	331.6	312.5	305.7	313.2	309.1
17.5°	2542.2	2298.0	1526.3	901.3	478.3	334.3	305.0	297.5	306.4	322.0	317.9
20°	2533.4	2204.5	1319.6	635.2	353.4	300.9	288.6	277.0	295.4	311.8	309.1
22.5°	2525.2	2113.1	1125.1	468.7	295.4	274.3	264.0	259.3	268.8	287.9	292.0
25°	2452.9	2068.0	927.9	352.1	267.5	249.0	244.3	240.2	243.6	259.3	258.6
27.5°	2541.6	1954.1	716.4	295.4	247.7	225.8	221.7	214.9	208.1	221.7	223.8
30°	2523.1	1969.8	561.5	260.0	227.9	198.5	199.9	185.6	173.3	185.6	185.6
32.5°	2590.0	1855.2	449.6	236.1	208.1	186.9	169.9	154.9	146.0	153.5	154.9
35°	2687.6	1859.9	352.1	221.1	191.0	166.5	146.0	131.0	122.8	126.2	128.3
37.5°	3014.4	1827.2	294.1	209.5	184.9	154.2	133.0	113.3	107.8	111.9	113.9
40°	3227.3	1914.5	259.3	203.3	169.2	141.9	113.9	99.6	94.8	96.9	100.3
42.5°	3628.5	1963.0	242.2	196.5	154.9	121.4	97.6	89.4	82.6	85.3	88.0
45°	4057.6	2045.5	229.3	189.0	144.0	106.4	86.0	79.1	70.3	71.0	73.7
47.5°	4585.0	2242.0	214.2	176.0	129.0	96.9	76.4	66.2	58.0	57.3	60.7
50°	5293.3	2504.7	200.6	159.7	119.4	88.7	66.9	53.9	47.1	45.0	47.8
52.5°	6049.2	2844.5	186.3	148.1	107.8	77.8	57.3	43.7	37.5	36.2	38.2
55°	6798.4	3170.6	172.6	140.6	95.5	66.9	48.4	36.2	30.7	29.3	30.7
57.5°	7651.9	3523.4	154.9	125.5	83.9	58.0	40.3	30.0	25.2	23.9	24.6
60°	8294.7	3647.6	139.9	109.2	73.0	51.2	34.1	23.9	20.5	19.1	19.8
62.5°	8599.7	3444.9	125.5	94.8	64.1	44.3	28.7	19.8	17.1	15.7	15.7
65°	8520.5	2996.0	111.2	81.2	55.3	36.8	22.5	17.1	15.0	13.0	12.3
67.5°	7606.2	2344.4	94.8	68.2	46.4	30.0	19.1	16.4	13.6	12.3	10.2
70°	6032.2	1697.6	77.1	56.6	38.9	24.6	15.0	15.0	13.0	12.3	9.6
72.5°	3953.9	1068.5	62.8	45.7	32.1	19.1	11.6	13.6	12.3	12.3	8.9
75°	1713.2	382.1	50.5	36.8	26.6	13.0	10.2	12.3	13.0	12.3	10.2
77.5°	401.2	118.7	39.6	29.3	21.8	8.9	10.2	12.3	13.0	11.6	8.9
80°	150.8	50.5	25.9	19.1	17.1	5.5	8.9	7.5	6.8	4.8	1.4
82.5°	91.4	21.2	13.6	9.6	8.2	1.4	4.1	2.7	1.4	1.4	0.0
85°	64.8	10.2	7.5	6.8	4.1	0.0	0.7	0.0	0.0	0.7	0.0
87.5°	8.9	2.7	3.4	3.4	2.7	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)