

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: P367948

Luminaire Tested: **MSA-SA3C-730-U-SL3**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367948  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-18)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA3C-730-U-SL3  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16268 lumens  
Efficiency: N/A  
Efficacy: 98.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G3

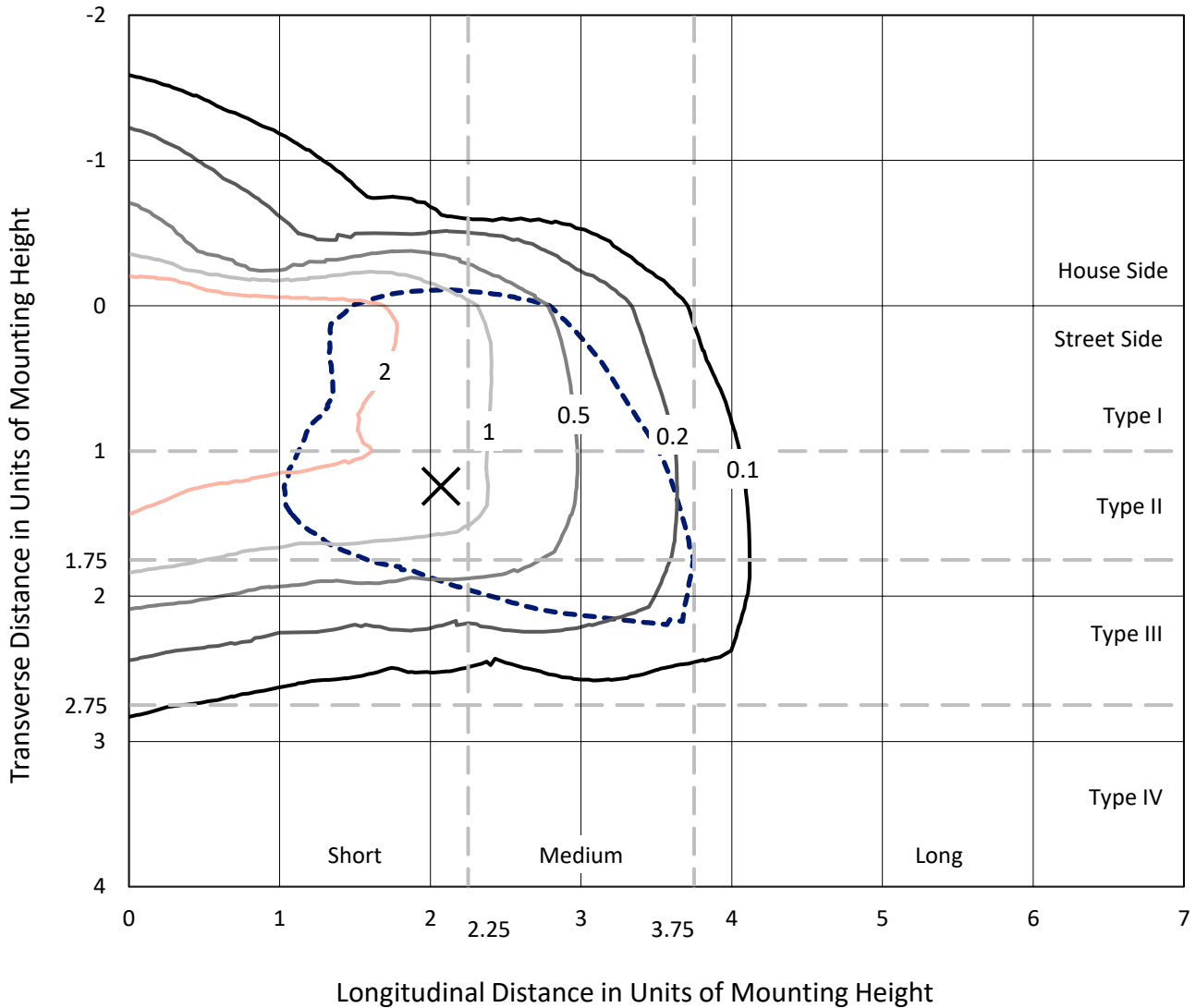
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

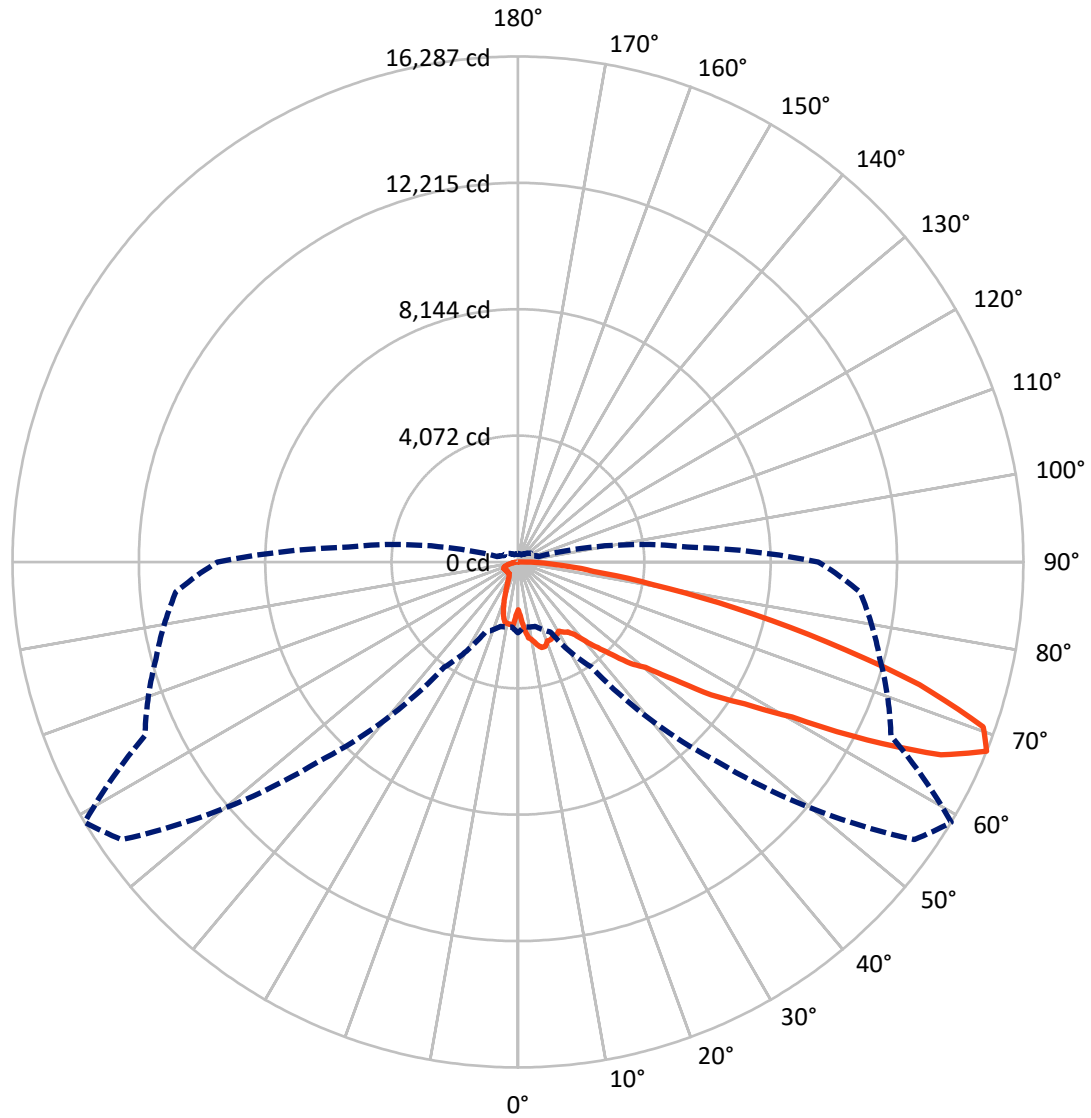
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 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	2448.7	0.0	2448.7
	% Fixture	15.1	0.0	15.1
<b>Street Side</b>	Lumens	13819.3	0.0	13819.3
	% Fixture	84.9	0.0	84.9
<b>Total</b>	Lumens	16268.0	0.0	16268.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	201.0	1.2
10°-20°	594.9	3.7
20°-30°	849.6	5.2
30°-40°	1252.0	7.7
40°-50°	2115.3	13.0
50°-60°	3681.0	22.6
60°-70°	4690.7	28.8
70°-80°	2483.8	15.3
80°-90°	399.6	2.5
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°	16268.0	100.0
0°-180°	16268.0	100.0

**Coefficient of Utilization**



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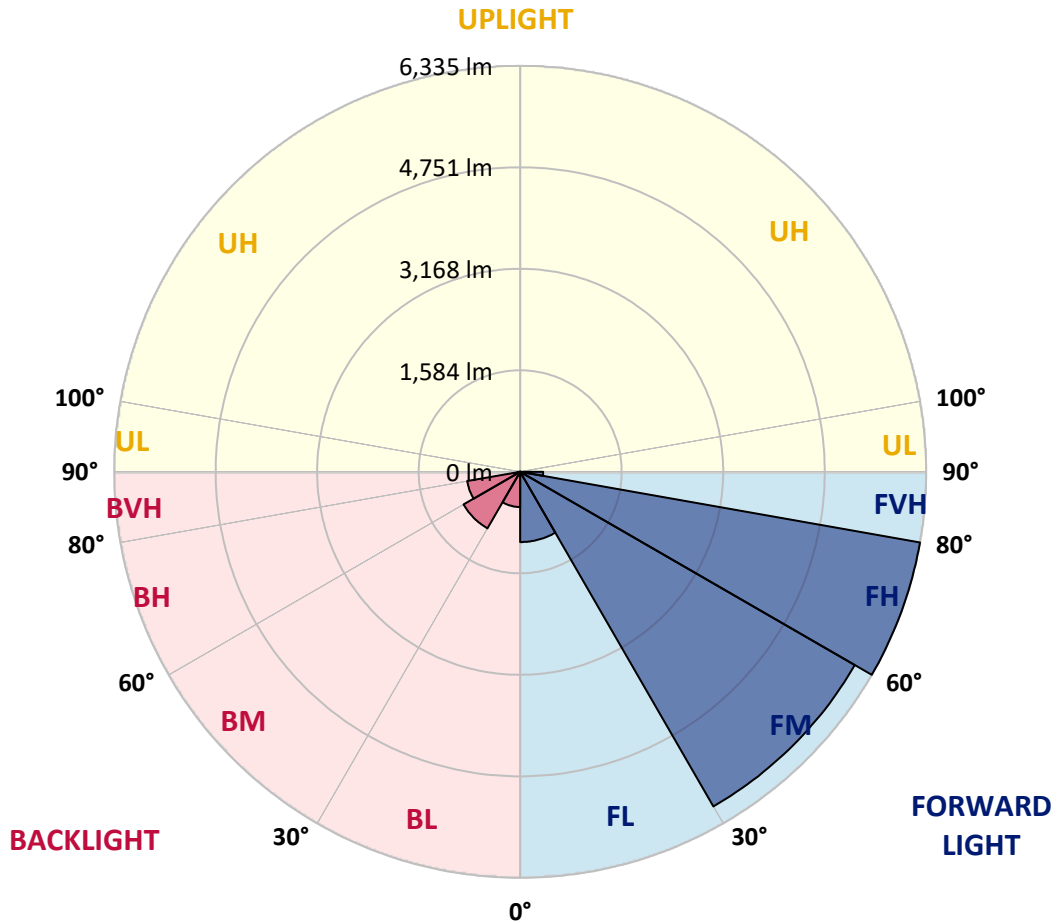
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1096.5	6.7			
FM (30°-60°)	6028.7	37.1			
FH (60°-80°)	6335.3	38.9			G3/7500
FVH (80°-90°)	358.9	2.2			G3/500
BL (0°-30°)	549.1	3.4	B2/1000		
BM (30°-60°)	1019.6	6.3	B2/2500		
BH (60°-80°)	839.2	5.2	B2/1000		G2/1000
BVH (80°-90°)	40.7	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1539.4	1539.4	1539.4	1539.4	1539.4	1539.4	1539.4	1539.4	1539.4	1539.4	1539.4
2.5°	1922.0	1832.4	1737.2	1764.1	1818.6	1843.4	1816.5	1790.3	1756.5	1716.6	1853.0
5°	2330.8	2197.7	2178.4	2177.7	2158.4	2081.2	2180.5	2173.6	2213.6	2255.0	2361.1
7.5°	2447.3	2397.7	2343.9	2369.4	2272.2	2268.1	2422.5	2466.6	2543.8	2518.3	2661.0
10°	2387.3	2331.5	2359.7	2349.4	2358.4	2460.4	2554.8	2557.6	2640.3	2721.7	2630.0
12.5°	2281.8	2286.0	2398.3	2394.2	2539.0	2728.6	2756.8	2734.8	2869.9	2814.7	2893.3
15°	2357.0	2407.3	2379.0	2403.2	2460.4	2701.7	2780.3	2860.2	2988.5	3038.1	2959.5
17.5°	2476.9	2503.8	2377.0	2363.9	2481.8	2596.2	2791.3	2859.5	2879.5	3233.2	3122.2
20°	2425.9	2480.4	2356.3	2197.0	2392.8	2544.5	2736.8	2716.2	2813.4	3248.4	3156.0
22.5°	2570.7	2480.4	2322.5	2209.5	2278.4	2417.6	2581.0	2716.8	2832.0	3159.4	3204.9
25°	2598.3	2555.5	2408.0	2295.6	2272.2	2321.8	2554.8	2643.8	2838.2	3280.8	3178.7
27.5°	2766.5	2702.4	2401.8	2405.2	2288.7	2201.2	2472.1	2658.9	2908.5	3205.6	3242.8
30°	2975.4	2926.4	2549.3	2563.1	2401.8	2240.5	2528.6	2585.2	2949.2	3322.8	3323.5
32.5°	3131.8	3218.0	2839.5	2652.0	2594.8	2474.2	2441.8	2696.2	2901.6	3535.1	3461.4
35°	3413.8	3480.7	3062.9	2912.6	2718.9	2583.1	2677.5	2769.2	3099.4	3814.3	3666.1
37.5°	3935.7	3858.5	3477.9	3241.5	3169.1	2973.3	3025.7	2961.6	3314.5	4128.0	4067.3
40°	4237.6	4170.7	3770.2	3639.2	3352.4	3377.3	3311.8	3358.7	3602.0	4461.7	4442.4
42.5°	4535.4	4445.8	4107.3	4016.3	3730.2	3608.9	3620.6	3772.3	4045.3	5000.7	4936.6
45°	4829.8	4600.2	4452.0	4476.1	4338.3	4089.4	4106.6	4249.3	4529.2	5617.1	5469.5
47.5°	5055.2	4865.6	4749.8	4720.2	4651.9	4984.9	4836.0	4893.9	5017.3	6165.8	6110.0
50°	5481.9	5260.6	5109.7	5066.9	5298.6	5761.8	5458.5	5333.7	5596.4	6875.2	6846.2
52.5°	6165.1	5889.4	5637.7	5635.0	5970.0	6270.6	6484.3	6269.2	6365.7	7601.8	7684.5
55°	6761.4	6442.2	6216.1	6340.9	6818.0	7002.0	7727.9	7559.7	7478.4	8335.3	8571.7
57.5°	6984.1	6611.1	6463.6	6647.7	7350.8	8296.7	9063.9	8621.4	8542.1	9165.3	9660.9
60°	6495.3	6101.0	6110.0	6456.7	7674.8	9247.3	10524.7	10149.0	9684.4	10198.7	10682.6
62.5°	5102.8	4746.4	4978.7	5506.1	7403.2	10171.1	12482.6	12641.1	10989.4	11055.6	11249.3
65°	3468.3	3221.5	3431.0	3947.4	6004.5	10675.0	14347.3	14982.9	12177.9	11616.7	11494.0
67.5°	2282.5	2108.1	2148.8	2492.1	4133.5	9100.5	15594.4	16287.3	13264.3	12077.2	11062.5
70°	1767.6	1626.9	1609.0	1788.9	2451.4	6322.3	14855.4	15908.8	13926.1	11645.7	9642.3
72.5°	1387.0	1280.2	1289.8	1462.9	1898.5	3507.6	11495.4	13528.4	12929.3	10043.6	7408.1
75°	1081.6	994.1	1043.0	1240.9	1755.8	2179.8	7931.3	10267.6	9996.0	7437.0	4225.2
77.5°	785.2	728.7	798.3	1056.8	1650.4	1870.3	4937.3	7163.3	6403.6	3818.5	1449.8
80°	515.0	483.3	540.5	861.7	1496.6	1800.0	3051.2	4389.3	3164.2	1072.7	548.7
82.5°	303.3	289.5	337.1	583.2	1203.0	1686.9	2035.0	2439.0	1294.7	453.6	291.6
85°	159.2	148.9	199.9	335.0	829.3	1540.1	1602.1	1460.1	625.3	197.2	139.3
87.5°	53.1	51.7	84.8	129.6	313.7	817.6	854.8	693.5	257.8	57.2	30.3
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°	1539.4	1539.4	1539.4	1539.4	1539.4	1539.4	1539.4	1539.4	1539.4	1539.4	1539.4
2.5°	1871.7	1844.1	1685.5	1707.6	1728.3	1717.9	1711.7	1640.0	1633.1	1735.2	1726.9
5°	2358.4	2243.9	2108.8	2102.6	2013.7	1922.7	1940.6	1911.6	1919.9	1962.0	1966.1
7.5°	2615.5	2472.8	2343.9	2134.3	1956.5	1812.4	1835.1	1828.2	1809.6	1904.8	1930.3
10°	2610.7	2483.8	2338.4	2084.7	1964.7	1847.5	1706.9	1573.9	1534.6	1487.7	1491.8
12.5°	2783.0	2670.7	2353.5	2095.0	1932.3	1730.3	1467.0	1321.5	1182.3	1179.5	1144.4
15°	2836.8	2754.1	2385.9	2035.7	1705.5	1416.0	1143.7	985.8	885.2	865.2	835.5
17.5°	2972.6	2843.0	2287.4	1844.1	1442.2	1107.1	859.7	749.4	741.1	754.9	739.7
20°	2981.6	2771.3	2109.5	1560.8	1158.8	839.0	701.1	645.9	675.6	709.4	708.0
22.5°	2974.0	2681.0	1955.8	1319.5	870.7	674.2	614.2	601.8	629.4	679.7	685.9
25°	2896.8	2651.3	1763.4	1083.7	706.6	577.7	561.2	568.7	603.2	662.5	662.5
27.5°	2977.4	2530.7	1522.1	881.7	594.2	514.3	526.0	545.3	570.8	638.4	650.8
30°	2951.2	2570.7	1327.7	710.1	523.9	470.2	496.4	515.7	544.6	614.9	621.1
32.5°	3021.5	2463.8	1164.4	597.0	477.7	452.9	459.1	485.3	523.2	578.4	589.4
35°	3129.1	2503.1	976.8	537.0	455.0	432.9	444.6	465.3	503.2	557.0	566.0
37.5°	3472.4	2501.1	847.2	503.9	450.9	428.8	434.3	448.8	492.9	541.9	562.5
40°	3693.0	2644.5	729.4	496.4	446.0	426.7	421.9	437.8	472.9	530.8	545.3
42.5°	4107.3	2732.0	678.3	493.6	445.3	415.0	410.2	428.8	463.3	517.0	539.1
45°	4545.1	2856.8	637.7	492.2	443.3	412.9	398.5	421.9	450.9	502.6	528.1
47.5°	5060.0	3120.8	614.9	487.4	439.1	415.7	394.3	406.0	438.4	490.1	515.7
50°	5734.2	3470.3	619.8	480.5	445.3	416.4	388.1	393.6	423.3	473.6	499.8
52.5°	6553.9	4011.5	650.8	483.3	449.5	412.9	385.4	382.6	408.1	452.2	478.4
55°	7541.8	4779.5	743.8	496.4	449.5	412.2	381.2	368.8	388.1	424.0	449.5
57.5°	8733.7	5668.8	925.8	502.6	446.0	408.1	372.3	350.2	361.9	391.6	415.7
60°	9757.5	6386.4	1113.3	506.7	452.9	398.5	354.3	326.8	334.3	357.1	378.5
62.5°	10279.3	6587.7	1169.9	503.2	471.5	392.3	333.0	301.9	302.6	321.9	341.2
65°	10377.2	6319.5	943.1	499.8	495.7	391.6	317.8	280.6	275.8	289.5	306.1
67.5°	9679.6	5485.4	680.4	492.2	498.4	387.4	307.5	263.3	250.9	260.6	274.4
70°	8218.8	4417.5	571.5	477.0	465.3	366.7	289.5	245.4	228.9	235.8	246.1
72.5°	6127.2	3268.3	498.4	444.6	405.4	313.7	262.0	225.4	208.2	213.0	220.6
75°	3404.1	1743.4	417.1	386.7	330.9	253.7	223.4	199.9	184.8	186.8	195.1
77.5°	1130.6	643.2	306.1	306.8	250.2	195.8	184.1	171.0	159.2	159.9	166.8
80°	512.2	355.7	219.2	220.6	174.4	142.0	141.3	137.2	129.6	127.5	132.4
82.5°	297.1	215.8	150.3	143.4	112.4	92.4	102.7	100.6	98.6	91.0	92.4
85°	146.1	115.8	78.6	74.5	62.0	46.2	55.2	57.2	55.2	46.9	46.2
87.5°	35.8	37.9	19.3	17.9	10.3	4.8	8.3	8.3	10.3	6.9	3.4
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)