

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: P366825

Luminaire Tested: **MSA-SA1B-760-U-SL3-HSS**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P366825  
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-SA1B-760-U-SL3-HSS  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) 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: 4159 lumens  
Efficiency: N/A  
Efficacy: 94.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B0 - U0 - G1

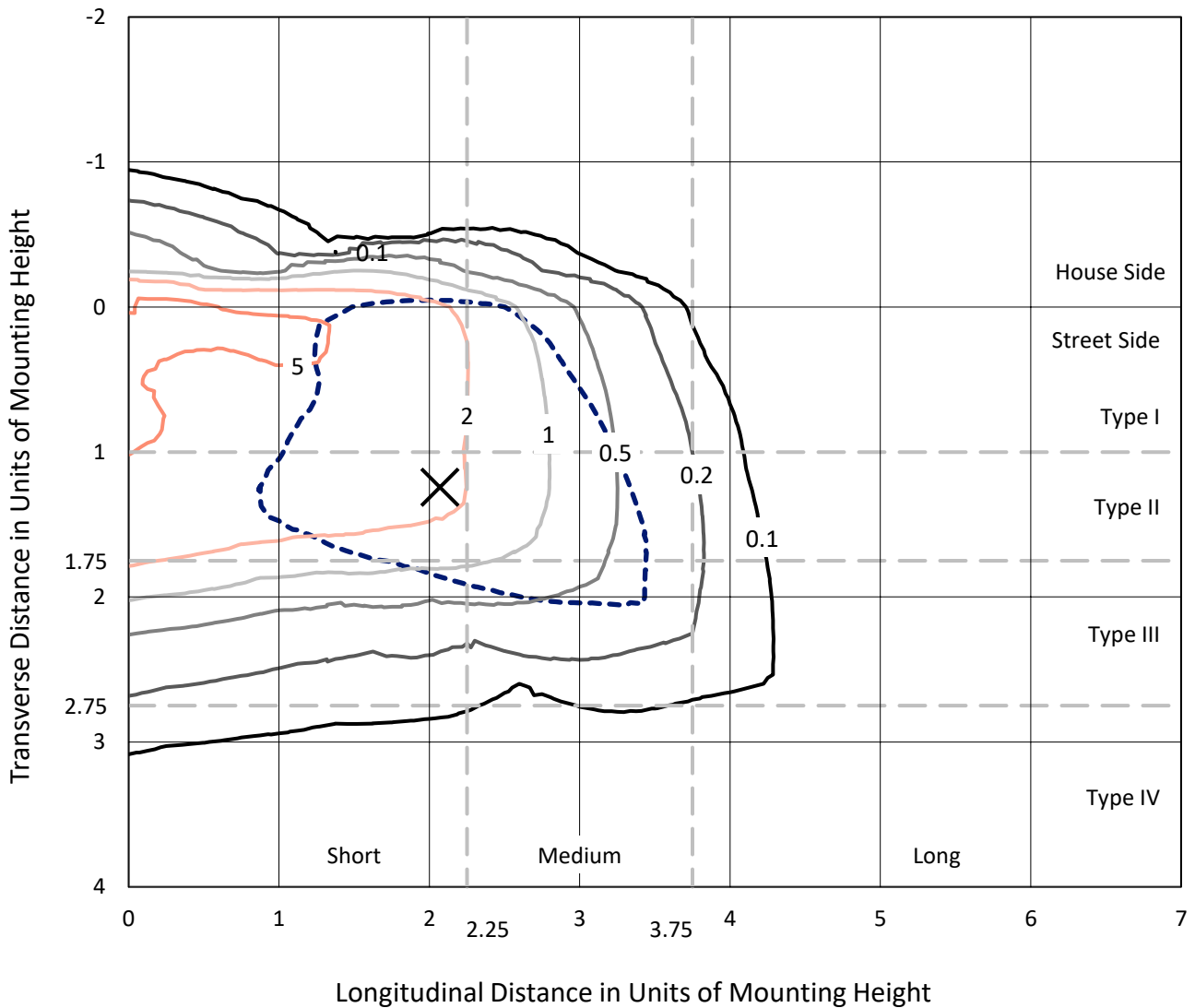
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

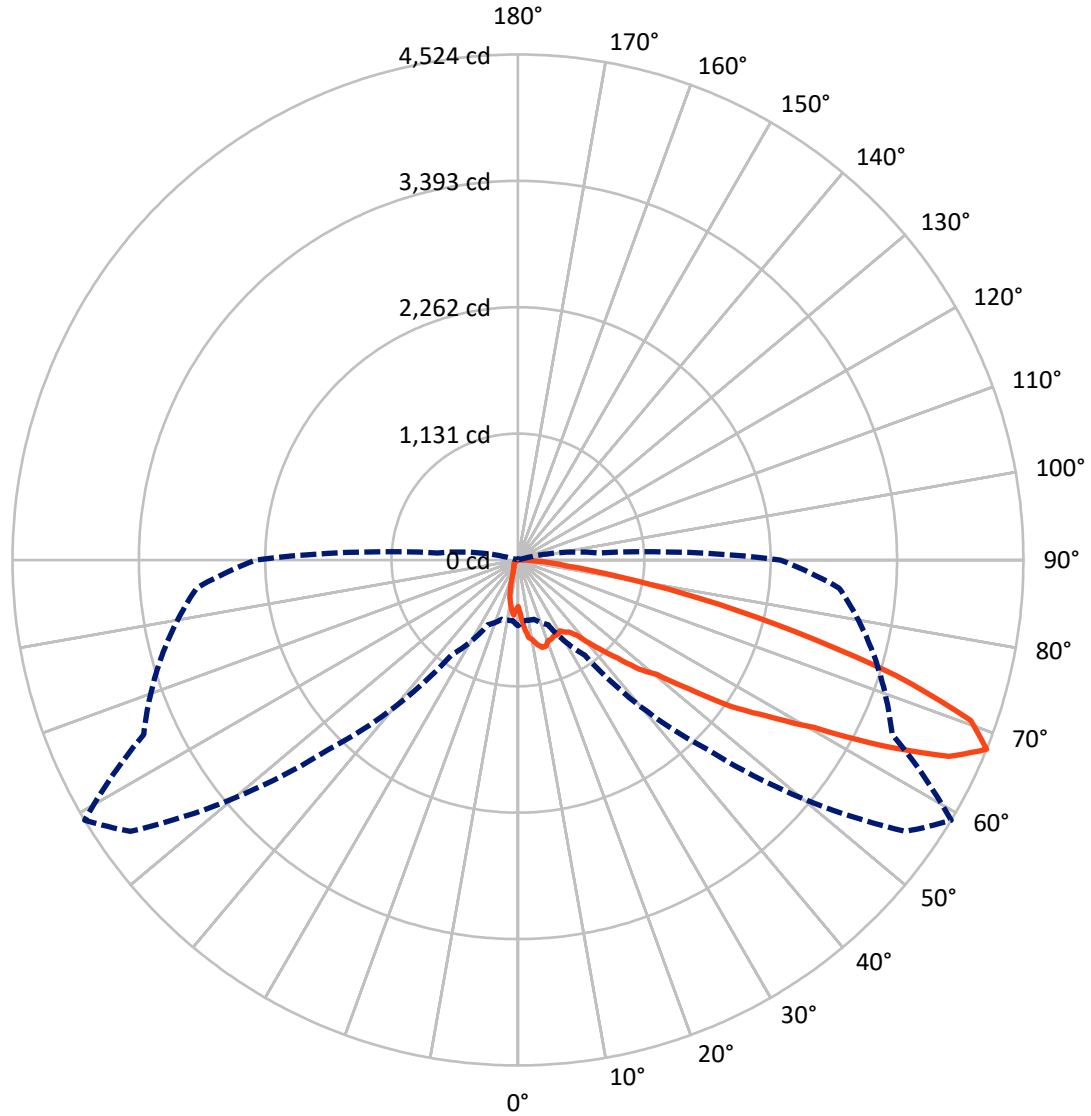
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.4 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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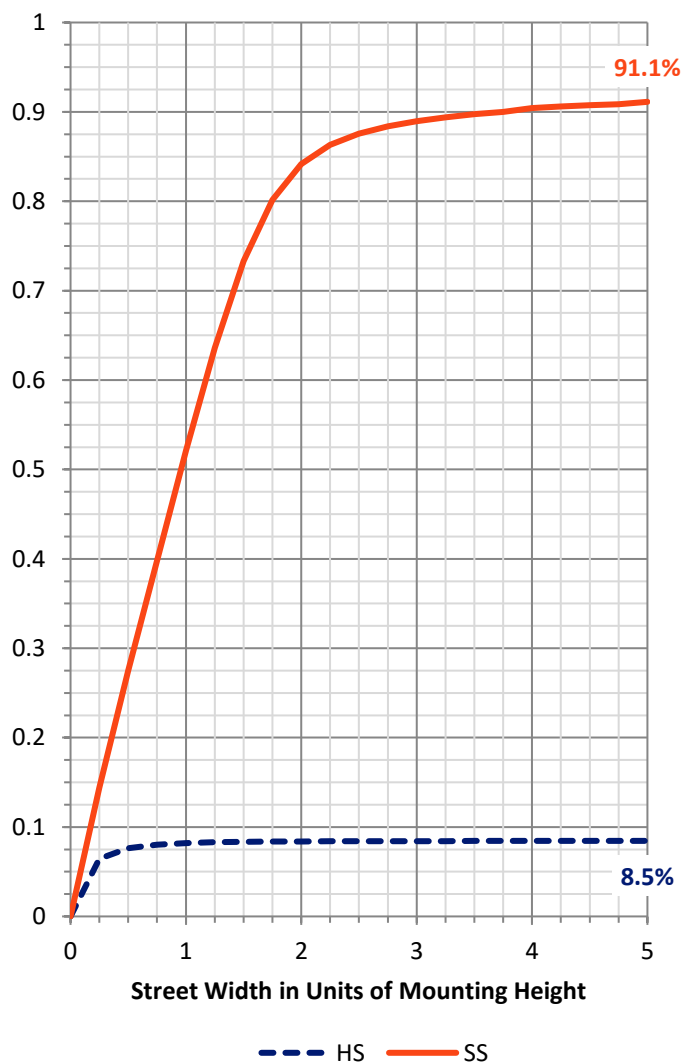
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	353.7	0.0	353.7
	% Fixture	8.5	0.0	8.5
<b>Street Side</b>	Lumens	3805.3	0.0	3805.3
	% Fixture	91.5	0.0	91.5
<b>Total</b>	Lumens	4159.0	0.0	4159.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.6	1.2
10°-20°	142.5	3.4
20°-30°	211.9	5.1
30°-40°	326.9	7.9
40°-50°	583.5	14.0
50°-60°	1038.3	25.0
60°-70°	1209.2	29.1
70°-80°	537.8	12.9
80°-90°	58.4	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°	4159.0	100.0
0°-180°	4159.0	100.0

**Coefficient of Utilization**

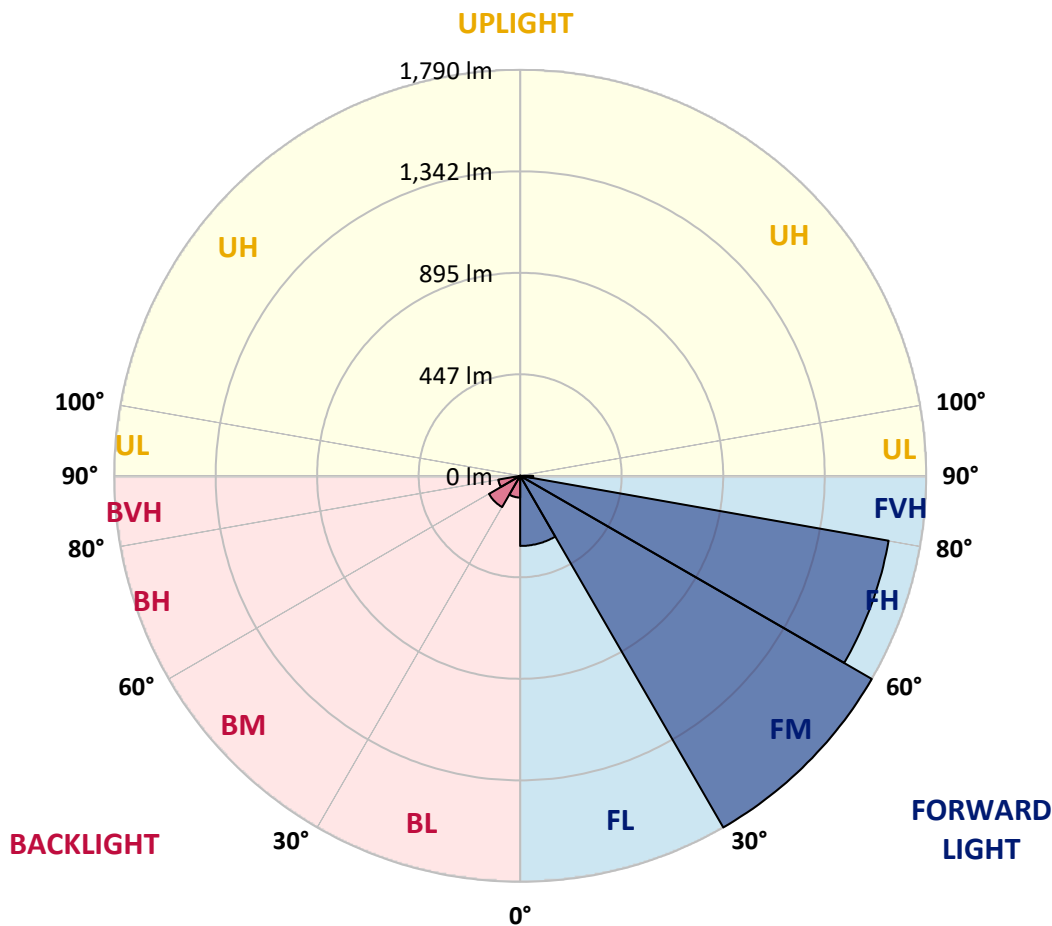


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	309.3	7.4			
FM (30°-60°)	1789.6	43.0			
FH (60°-80°)	1649.0	39.6			G1/1800
FVH (80°-90°)	57.4	1.4			G1/100
BL (0°-30°)	95.7	2.3	B0/110		
BM (30°-60°)	159.0	3.8	B0/220		
BH (60°-80°)	98.0	2.4	B0/110		G0/110
BVH (80°-90°)	1.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**  
 Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	416.1	416.1	416.1	416.1	416.1	416.1	416.1	416.1	416.1	416.1	416.1
2.5°	542.5	522.0	493.0	501.6	509.4	516.8	504.6	497.6	494.2	464.3	501.8
5°	666.1	640.6	627.3	624.0	615.5	596.8	628.0	614.1	618.7	624.6	636.8
7.5°	703.8	692.2	673.0	680.2	648.2	645.5	688.6	700.6	716.4	705.7	720.4
10°	684.4	664.4	673.5	670.9	669.7	697.9	728.2	728.8	752.4	763.8	713.9
12.5°	646.1	648.4	680.8	678.3	720.4	776.9	783.8	776.4	815.0	795.2	787.6
15°	671.6	690.5	672.6	678.7	693.7	764.2	788.9	811.6	848.0	859.8	808.7
17.5°	702.3	704.2	671.6	664.0	701.7	734.5	792.7	811.4	815.0	918.4	856.0
20°	685.7	701.9	662.9	615.1	673.7	718.3	777.3	771.4	795.4	935.6	866.8
22.5°	729.9	706.7	656.8	620.8	640.6	681.3	731.2	769.7	805.7	894.4	880.7
25°	734.1	725.7	681.3	649.2	645.9	656.2	725.7	750.5	807.0	931.4	868.9
27.5°	781.5	771.8	680.8	684.0	652.4	620.6	699.2	757.5	829.9	908.9	893.9
30°	842.6	843.4	726.1	736.0	690.9	639.8	720.8	736.8	845.5	944.9	912.5
32.5°	904.5	930.0	815.6	763.2	749.1	712.4	693.9	767.8	828.5	1006.4	958.8
35°	998.6	1015.9	889.3	842.4	787.0	745.3	767.2	793.7	889.7	1087.9	1019.7
37.5°	1158.0	1126.9	1021.6	939.9	926.6	865.1	876.0	852.2	952.3	1183.9	1140.1
40°	1247.7	1219.5	1110.0	1070.2	985.6	995.0	960.5	974.4	1043.0	1284.0	1249.8
42.5°	1341.2	1314.3	1218.2	1190.0	1109.4	1070.2	1054.6	1104.5	1182.2	1450.5	1407.1
45°	1435.2	1366.7	1326.1	1340.2	1304.0	1226.5	1208.4	1252.8	1334.3	1655.2	1573.1
47.5°	1514.3	1456.6	1426.1	1419.6	1405.5	1513.1	1439.4	1459.0	1495.0	1836.3	1779.9
50°	1657.1	1600.3	1552.5	1539.2	1607.8	1760.5	1646.8	1608.9	1680.9	2055.1	2019.5
52.5°	1863.3	1790.8	1714.8	1715.0	1844.5	1928.4	1982.3	1915.7	1929.2	2295.8	2280.0
55°	2029.0	1937.0	1874.0	1923.7	2116.8	2163.8	2369.5	2311.2	2293.7	2519.0	2499.7
57.5°	2051.8	1941.4	1911.5	1998.7	2263.0	2562.9	2784.2	2638.5	2611.7	2705.8	2744.4
60°	1839.5	1722.4	1744.9	1885.2	2310.6	2806.1	3164.9	3045.9	2876.0	2924.6	2951.2
62.5°	1372.0	1278.5	1341.7	1527.4	2127.1	2969.1	3605.7	3660.9	3182.6	3088.9	3083.2
65°	890.2	831.6	873.1	1025.4	1609.7	2950.5	3999.5	4238.7	3424.2	3222.8	3124.7
67.5°	588.8	544.4	550.3	640.4	1040.9	2399.6	4234.9	4524.1	3695.8	3298.9	2886.9
70°	438.9	403.9	406.0	454.9	617.9	1582.6	3906.6	4298.9	3795.0	3035.4	2330.2
72.5°	316.5	293.1	312.7	367.1	492.4	836.9	2911.8	3540.4	3309.2	2394.2	1569.9
75°	219.2	203.8	235.9	307.0	449.4	519.5	1924.1	2548.5	2319.4	1502.1	709.7
77.5°	121.5	116.9	163.0	250.2	407.9	425.8	1178.7	1674.6	1286.5	538.5	168.9
80°	53.1	51.4	79.0	187.8	342.8	384.7	663.6	928.5	506.0	96.0	54.5
82.5°	22.7	21.9	33.7	113.1	249.1	321.8	409.2	446.9	174.2	29.7	31.0
85°	4.0	4.4	13.5	59.6	151.6	163.4	296.3	264.5	87.6	14.1	22.1
87.5°	0.0	0.0	2.1	11.6	28.4	46.8	128.5	92.7	16.6	4.6	3.8
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°	416.1	416.1	416.1	416.1	416.1	416.1	416.1	416.1	416.1	416.1	416.1
2.5°	507.1	495.3	450.4	444.8	438.7	429.6	426.2	406.9	404.3	429.2	429.2
5°	631.1	589.0	546.3	512.6	482.5	440.8	429.0	416.8	406.9	404.3	412.1
7.5°	696.6	645.2	578.1	492.4	422.9	362.4	337.2	319.5	299.7	305.6	308.7
10°	693.0	638.5	552.8	442.7	365.6	298.8	234.6	197.1	176.3	165.9	164.7
12.5°	728.2	676.8	535.7	403.1	304.7	212.5	147.6	120.9	105.5	105.7	104.5
15°	748.6	692.6	515.9	352.9	214.6	136.7	102.3	96.4	94.3	96.7	95.4
17.5°	784.6	709.3	471.1	278.2	147.6	103.2	94.1	91.8	94.6	99.4	98.1
20°	781.9	680.4	407.3	196.1	109.1	92.9	89.1	85.5	91.2	96.2	95.4
22.5°	779.4	652.2	347.3	144.7	91.2	84.7	81.5	80.0	83.0	88.9	90.1
25°	757.1	638.3	286.4	108.7	82.6	76.9	75.4	74.1	75.2	80.0	79.8
27.5°	784.4	603.1	221.1	91.2	76.4	69.7	68.4	66.3	64.2	68.4	69.1
30°	778.8	608.0	173.3	80.2	70.3	61.3	61.7	57.3	53.5	57.3	57.3
32.5°	799.4	572.6	138.8	72.9	64.2	57.7	52.4	47.8	45.1	47.4	47.8
35°	829.5	574.1	108.7	68.2	59.0	51.4	45.1	40.4	37.9	39.0	39.6
37.5°	930.4	564.0	90.8	64.7	57.1	47.6	41.1	35.0	33.3	34.5	35.2
40°	996.1	590.9	80.0	62.8	52.2	43.8	35.2	30.7	29.3	29.9	31.0
42.5°	1119.9	605.9	74.8	60.6	47.8	37.5	30.1	27.6	25.5	26.3	27.2
45°	1252.4	631.3	70.8	58.3	44.4	32.9	26.5	24.4	21.7	21.9	22.7
47.5°	1415.1	692.0	66.1	54.3	39.8	29.9	23.6	20.4	17.9	17.7	18.7
50°	1633.7	773.1	61.9	49.3	36.9	27.4	20.6	16.6	14.5	13.9	14.7
52.5°	1867.1	877.9	57.5	45.7	33.3	24.0	17.7	13.5	11.6	11.2	11.8
55°	2098.3	978.6	53.3	43.4	29.5	20.6	15.0	11.2	9.5	9.1	9.5
57.5°	2361.7	1087.5	47.8	38.7	25.9	17.9	12.4	9.3	7.8	7.4	7.6
60°	2560.1	1125.8	43.2	33.7	22.5	15.8	10.5	7.4	6.3	5.9	6.1
62.5°	2654.2	1063.3	38.7	29.3	19.8	13.7	8.8	6.1	5.3	4.8	4.8
65°	2629.8	924.7	34.3	25.1	17.1	11.4	6.9	5.3	4.6	4.0	3.8
67.5°	2347.6	723.6	29.3	21.1	14.3	9.3	5.9	5.1	4.2	3.8	3.2
70°	1861.8	523.9	23.8	17.5	12.0	7.6	4.6	4.6	4.0	3.8	2.9
72.5°	1220.4	329.8	19.4	14.1	9.9	5.9	3.6	4.2	3.8	3.8	2.7
75°	528.8	117.9	15.6	11.4	8.2	4.0	3.2	3.8	4.0	3.8	3.2
77.5°	123.8	36.6	12.2	9.1	6.7	2.7	3.2	3.8	4.0	3.6	2.7
80°	46.5	15.6	8.0	5.9	5.3	1.7	2.7	2.3	2.1	1.5	0.4
82.5°	28.2	6.5	4.2	2.9	2.5	0.4	1.3	0.8	0.4	0.4	0.0
85°	20.0	3.2	2.3	2.1	1.3	0.0	0.2	0.0	0.0	0.2	0.0
87.5°	2.7	0.8	1.1	1.1	0.8	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)