

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: P596174

Luminaire Tested: **MSA-SA1C-722-U-SL3**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596174  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-18)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA1C-722-U-SL3  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) 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: 4524 lumens  
Efficiency: N/A  
Efficacy: 76.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G1

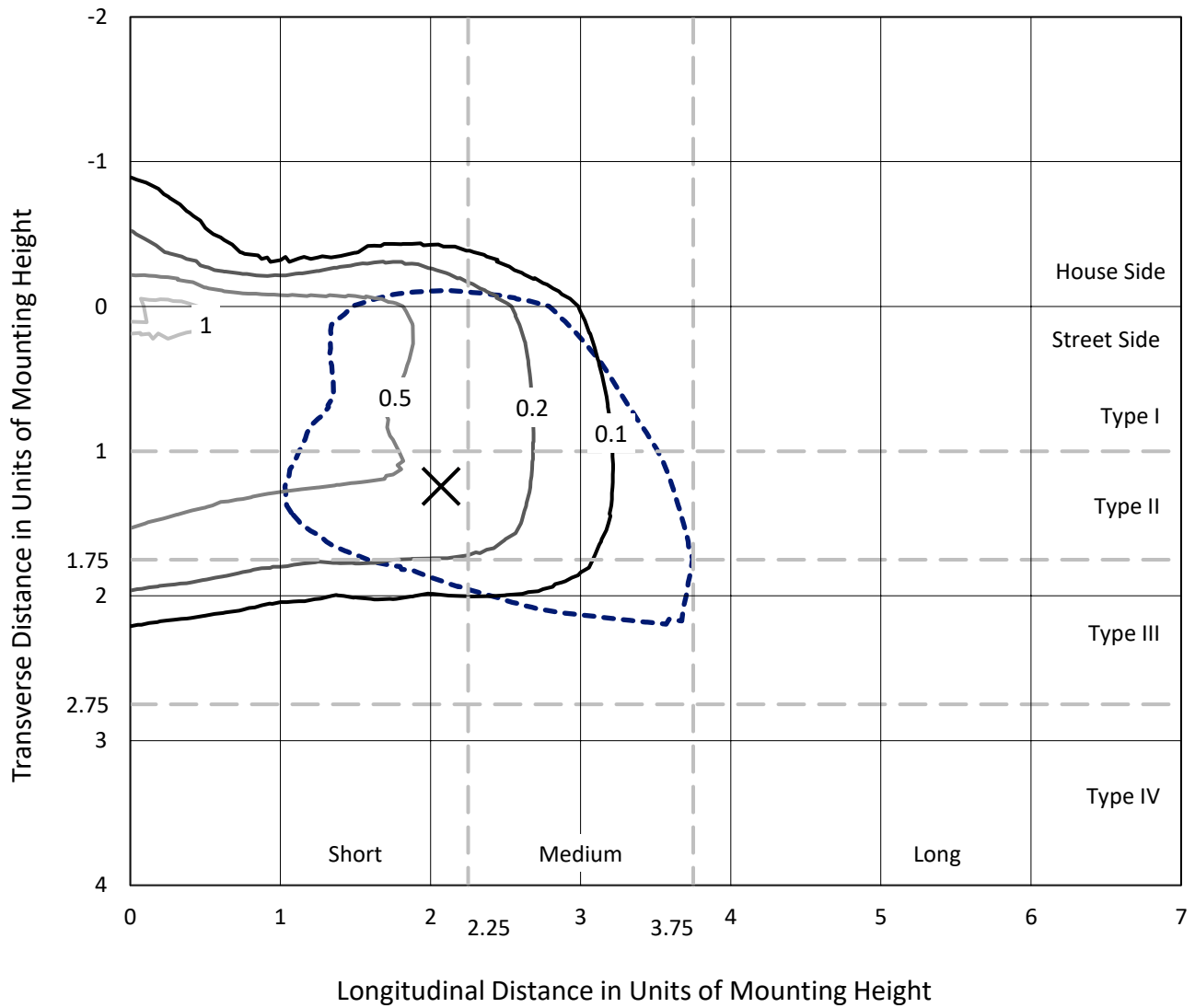
Input Watts (W): 59  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

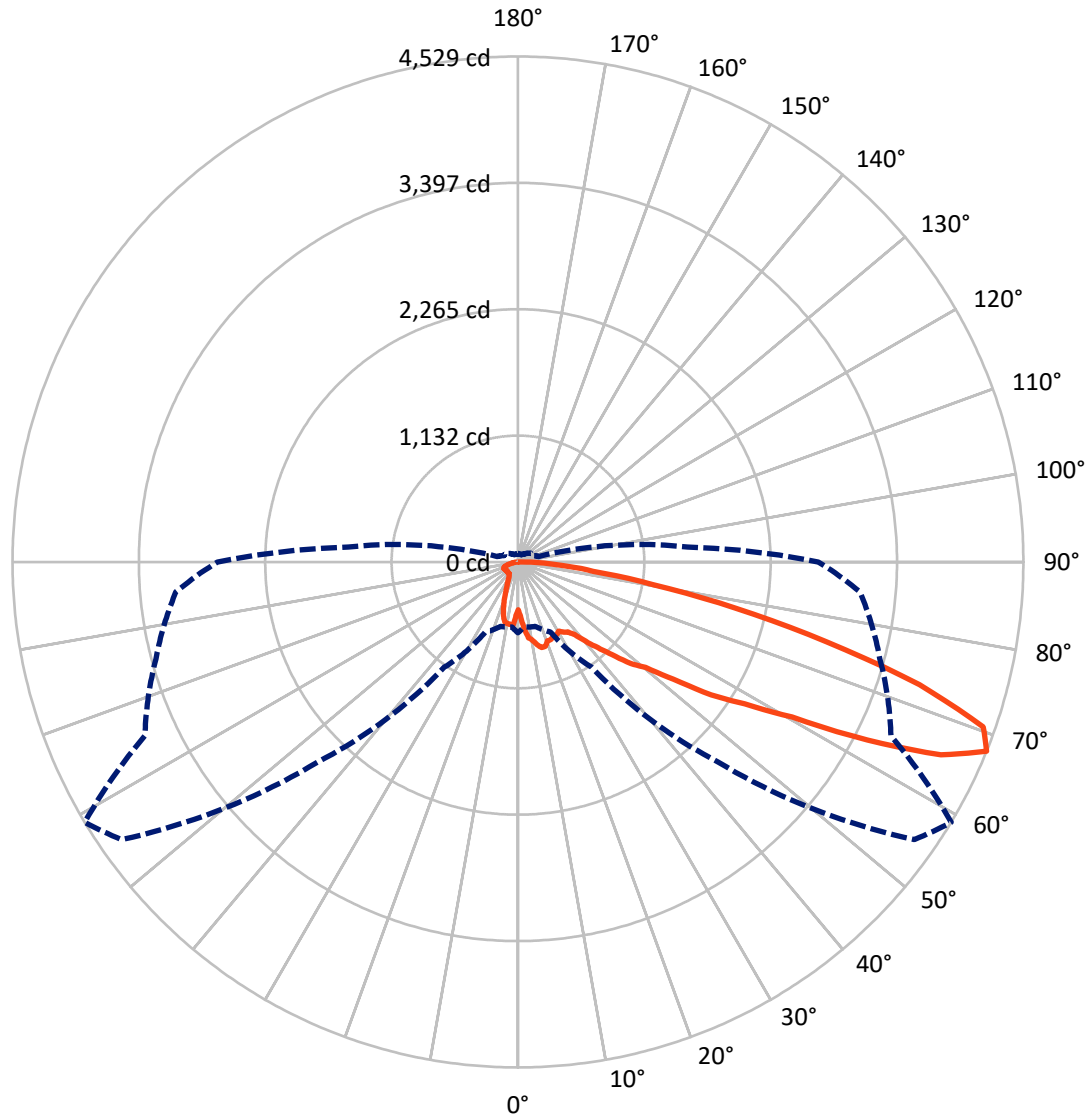
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 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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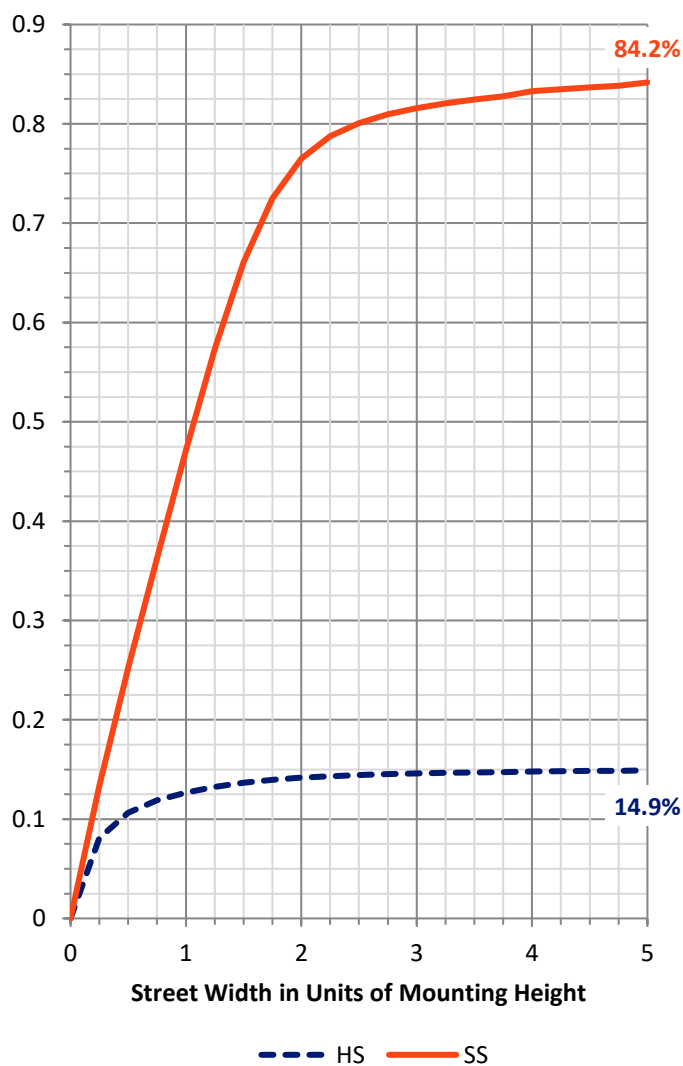
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	680.9	0.0	680.9
	% Fixture	15.1	0.0	15.1
<b>Street Side</b>	Lumens	3843.0	0.0	3843.0
	% Fixture	84.9	0.0	84.9
<b>Total</b>	Lumens	4524.0	0.0	4524.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.9	1.2
10°-20°	165.5	3.7
20°-30°	236.3	5.2
30°-40°	348.2	7.7
40°-50°	588.2	13.0
50°-60°	1023.7	22.6
60°-70°	1304.5	28.8
70°-80°	690.7	15.3
80°-90°	111.1	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°	4524.0	100.0
0°-180°	4524.0	100.0

**Coefficient of Utilization**



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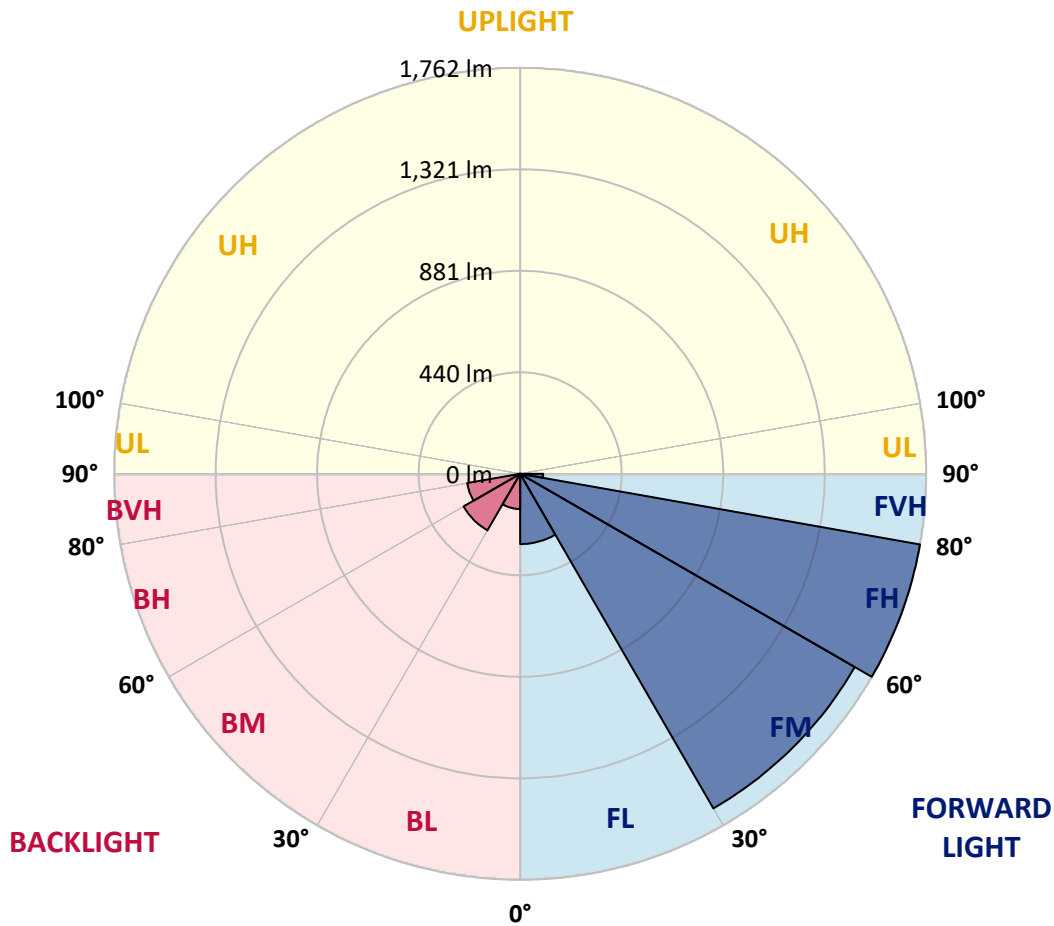
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	304.9	6.7			
FM (30°-60°)	1676.5	37.1			
FH (60°-80°)	1761.8	38.9			G1/1800
FVH (80°-90°)	99.8	2.2			G1/100
BL (0°-30°)	152.7	3.4	B1/500		
BM (30°-60°)	283.5	6.3	B1/1000		
BH (60°-80°)	233.4	5.2	B1/500		G1/500
BVH (80°-90°)	11.3	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1
2.5°	534.5	509.6	483.1	490.6	505.7	512.6	505.2	497.9	488.5	477.4	515.3
5°	648.2	611.2	605.8	605.6	600.2	578.8	606.4	604.5	615.6	627.1	656.6
7.5°	680.6	666.8	651.8	658.9	631.9	630.7	673.7	685.9	707.4	700.3	740.0
10°	663.9	648.4	656.2	653.3	655.8	684.2	710.5	711.2	734.3	756.9	731.4
12.5°	634.6	635.7	667.0	665.8	706.1	758.8	766.7	760.5	798.1	782.8	804.6
15°	655.5	669.5	661.6	668.3	684.2	751.3	773.2	795.4	831.1	844.9	823.0
17.5°	688.8	696.3	661.0	657.4	690.2	722.0	776.2	795.2	800.8	899.1	868.3
20°	674.6	689.8	655.3	611.0	665.4	707.6	761.1	755.3	782.4	903.3	877.7
22.5°	714.9	689.8	645.9	614.4	633.6	672.3	717.8	755.5	787.5	878.6	891.3
25°	722.6	710.7	669.6	638.4	631.9	645.7	710.5	735.2	789.3	912.4	884.0
27.5°	769.3	751.5	667.9	668.9	636.5	612.1	687.5	739.4	808.8	891.5	901.8
30°	827.4	813.8	708.9	712.8	667.9	623.1	703.2	718.9	820.1	924.0	924.2
32.5°	870.9	894.9	789.7	737.5	721.6	688.0	679.0	749.8	806.9	983.1	962.6
35°	949.4	967.9	851.8	810.0	756.1	718.3	744.6	770.1	861.9	1060.7	1019.5
37.5°	1094.5	1073.0	967.2	901.4	881.3	826.8	841.4	823.6	921.7	1148.0	1131.1
40°	1178.4	1159.8	1048.5	1012.0	932.3	939.2	921.0	934.0	1001.7	1240.8	1235.4
42.5°	1261.3	1236.3	1142.2	1116.9	1037.3	1003.6	1006.9	1049.0	1125.0	1390.7	1372.8
45°	1343.1	1279.3	1238.1	1244.8	1206.4	1137.2	1142.0	1181.7	1259.5	1562.1	1521.0
47.5°	1405.8	1353.1	1320.9	1312.6	1293.7	1386.3	1344.8	1361.0	1395.3	1714.7	1699.1
50°	1524.5	1462.9	1421.0	1409.1	1473.5	1602.3	1518.0	1483.3	1556.3	1911.9	1903.9
52.5°	1714.5	1637.8	1567.8	1567.0	1660.2	1743.8	1803.2	1743.4	1770.3	2114.0	2137.0
55°	1880.3	1791.5	1728.7	1763.4	1896.0	1947.2	2149.1	2102.3	2079.7	2318.0	2383.7
57.5°	1942.2	1838.5	1797.5	1848.7	2044.2	2307.2	2520.6	2397.5	2375.5	2548.8	2686.6
60°	1806.3	1696.6	1699.1	1795.6	2134.3	2571.6	2926.8	2822.4	2693.1	2836.2	2970.7
62.5°	1419.0	1319.9	1384.5	1531.2	2058.8	2828.5	3471.3	3515.4	3056.1	3074.5	3128.3
65°	964.5	895.9	954.1	1097.7	1669.8	2968.6	3989.9	4166.6	3386.6	3230.5	3196.4
67.5°	634.8	586.3	597.6	693.0	1149.5	2530.8	4336.7	4529.4	3688.7	3358.6	3076.4
70°	491.5	452.4	447.5	497.5	681.7	1758.2	4131.2	4424.1	3872.7	3238.6	2681.5
72.5°	385.7	356.0	358.7	406.8	528.0	975.4	3196.8	3762.1	3595.5	2793.0	2060.1
75°	300.8	276.4	290.1	345.1	488.3	606.2	2205.6	2855.3	2779.8	2068.2	1175.0
77.5°	218.4	202.6	222.0	293.9	459.0	520.1	1373.0	1992.1	1780.8	1061.9	403.2
80°	143.2	134.4	150.3	239.6	416.2	500.6	848.5	1220.6	880.0	298.3	152.6
82.5°	84.4	80.5	93.7	162.2	334.5	469.1	565.9	678.3	360.0	126.1	81.1
85°	44.3	41.4	55.6	93.2	230.6	428.3	445.5	406.0	173.9	54.8	38.7
87.5°	14.8	14.4	23.6	36.0	87.2	227.4	237.7	192.9	71.7	15.9	8.4
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°	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1
2.5°	520.5	512.8	468.7	474.9	480.6	477.7	476.0	456.1	454.2	482.5	480.2
5°	655.8	624.0	586.4	584.7	560.0	534.7	539.7	531.6	533.9	545.6	546.8
7.5°	727.3	687.7	651.8	593.5	544.1	504.0	510.3	508.4	503.2	529.7	536.8
10°	726.0	690.7	650.3	579.7	546.4	513.8	474.7	437.7	426.7	413.7	414.9
12.5°	773.9	742.7	654.5	582.6	537.4	481.2	408.0	367.5	328.8	328.0	318.2
15°	788.9	765.9	663.5	566.1	474.3	393.8	318.0	274.1	246.2	240.6	232.4
17.5°	826.7	790.6	636.1	512.8	401.1	307.9	239.1	208.4	206.1	209.9	205.7
20°	829.1	770.7	586.6	434.0	322.3	233.3	195.0	179.6	187.9	197.3	196.9
22.5°	827.0	745.6	543.9	366.9	242.1	187.5	170.8	167.4	175.0	189.0	190.8
25°	805.6	737.3	490.4	301.4	196.5	160.7	156.1	158.2	167.7	184.2	184.2
27.5°	828.0	703.8	423.3	245.2	165.3	143.0	146.3	151.6	158.7	177.5	181.0
30°	820.7	714.9	369.2	197.5	145.7	130.7	138.0	143.4	151.5	171.0	172.7
32.5°	840.3	685.2	323.8	166.0	132.9	126.0	127.7	135.0	145.5	160.8	163.9
35°	870.2	696.1	271.7	149.3	126.5	120.4	123.7	129.4	139.9	154.9	157.4
37.5°	965.6	695.5	235.6	140.1	125.4	119.2	120.8	124.8	137.1	150.7	156.4
40°	1027.0	735.4	202.8	138.0	124.0	118.7	117.3	121.7	131.5	147.6	151.6
42.5°	1142.2	759.7	188.6	137.3	123.8	115.4	114.1	119.2	128.8	143.8	149.9
45°	1263.9	794.4	177.3	136.9	123.3	114.8	110.8	117.3	125.4	139.8	146.9
47.5°	1407.2	867.9	171.0	135.5	122.1	115.6	109.7	112.9	121.9	136.3	143.4
50°	1594.6	965.1	172.3	133.6	123.8	115.8	107.9	109.5	117.7	131.7	139.0
52.5°	1822.6	1115.6	181.0	134.4	125.0	114.8	107.2	106.4	113.5	125.8	133.0
55°	2097.3	1329.1	206.9	138.0	125.0	114.6	106.0	102.6	107.9	117.9	125.0
57.5°	2428.8	1576.4	257.5	139.8	124.0	113.5	103.5	97.4	100.6	108.9	115.6
60°	2713.5	1776.0	309.6	140.9	126.0	110.8	98.5	90.9	93.0	99.3	105.2
62.5°	2858.6	1832.0	325.3	139.9	131.1	109.1	92.6	84.0	84.2	89.5	94.9
65°	2885.8	1757.4	262.3	139.0	137.8	108.9	88.4	78.0	76.7	80.5	85.1
67.5°	2691.8	1525.4	189.2	136.9	138.6	107.7	85.5	73.2	69.8	72.5	76.3
70°	2285.6	1228.5	158.9	132.7	129.4	102.0	80.5	68.2	63.6	65.6	68.4
72.5°	1703.9	908.9	138.6	123.7	112.7	87.2	72.9	62.7	57.9	59.2	61.3
75°	946.7	484.8	116.0	107.5	92.0	70.5	62.1	55.6	51.4	52.0	54.3
77.5°	314.4	178.9	85.1	85.3	69.6	54.4	51.2	47.5	44.3	44.5	46.4
80°	142.4	98.9	61.0	61.3	48.5	39.5	39.3	38.2	36.0	35.5	36.8
82.5°	82.6	60.0	41.8	39.9	31.2	25.7	28.6	28.0	27.4	25.3	25.7
85°	40.6	32.2	21.9	20.7	17.3	12.8	15.3	15.9	15.3	13.0	12.8
87.5°	10.0	10.5	5.4	5.0	2.9	1.3	2.3	2.3	2.9	1.9	1.0
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)