

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: P366922

Luminaire Tested: **MSA-SA1C-740-U-T2**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P366922  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA1C-740-U-T2  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6256 lumens  
Efficiency: N/A  
Efficacy: 106.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G2

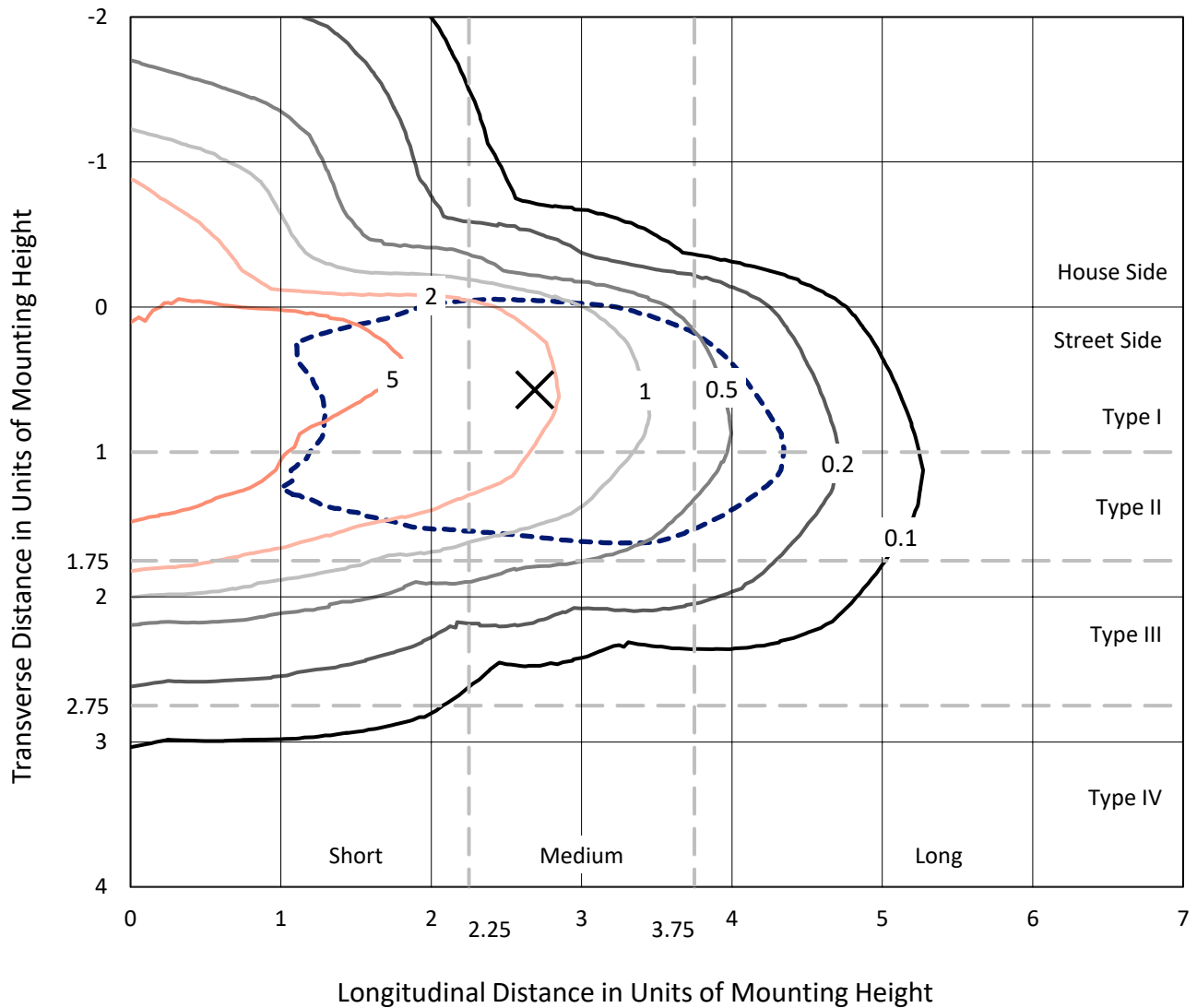
Input Watts (W): 59  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

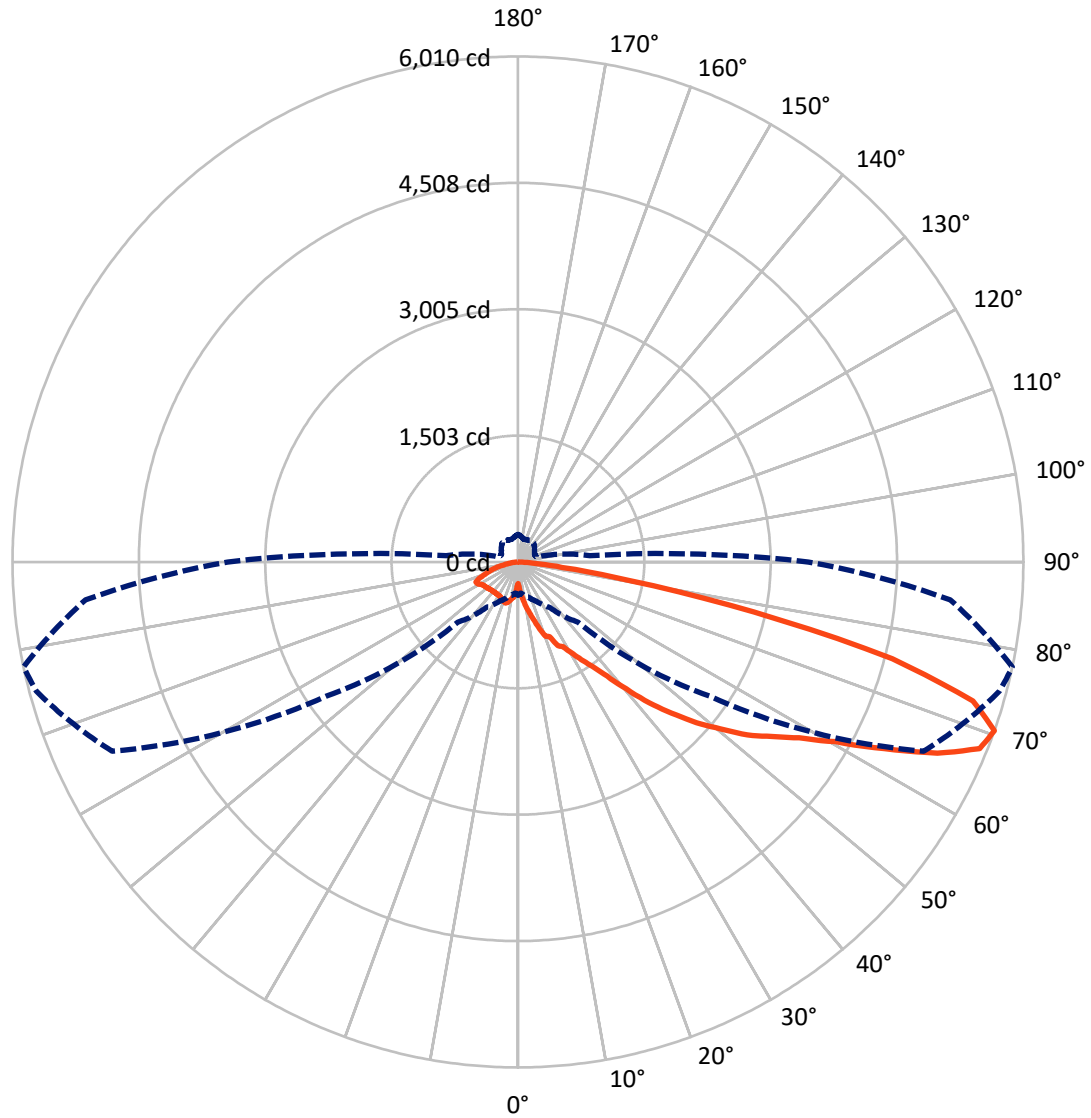
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.3 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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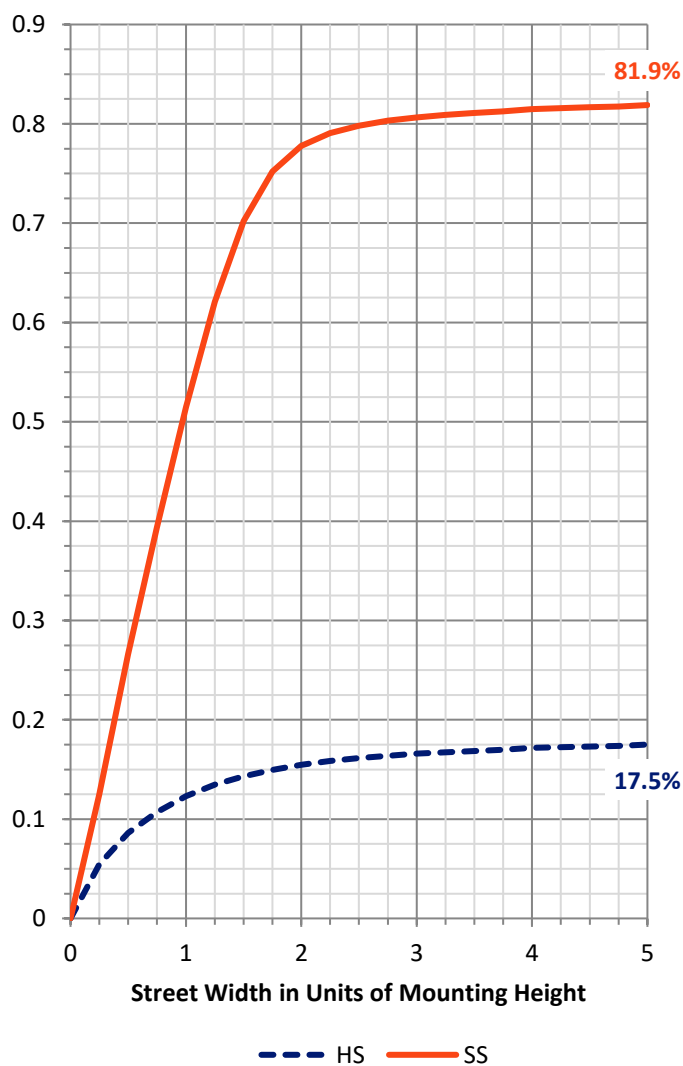
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1116.6	0.0	1116.6
	% Fixture	17.8	0.0	17.8
<b>Street Side</b>	Lumens	5139.4	0.0	5139.4
	% Fixture	82.2	0.0	82.2
<b>Total</b>	Lumens	6256.0	0.0	6256.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.4	0.6
10°-20°	173.7	2.8
20°-30°	334.3	5.3
30°-40°	563.1	9.0
40°-50°	974.2	15.6
50°-60°	1471.0	23.5
60°-70°	1629.3	26.0
70°-80°	939.3	15.0
80°-90°	131.7	2.1
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°	6256.0	100.0
0°-180°	6256.0	100.0

**Coefficient of Utilization**



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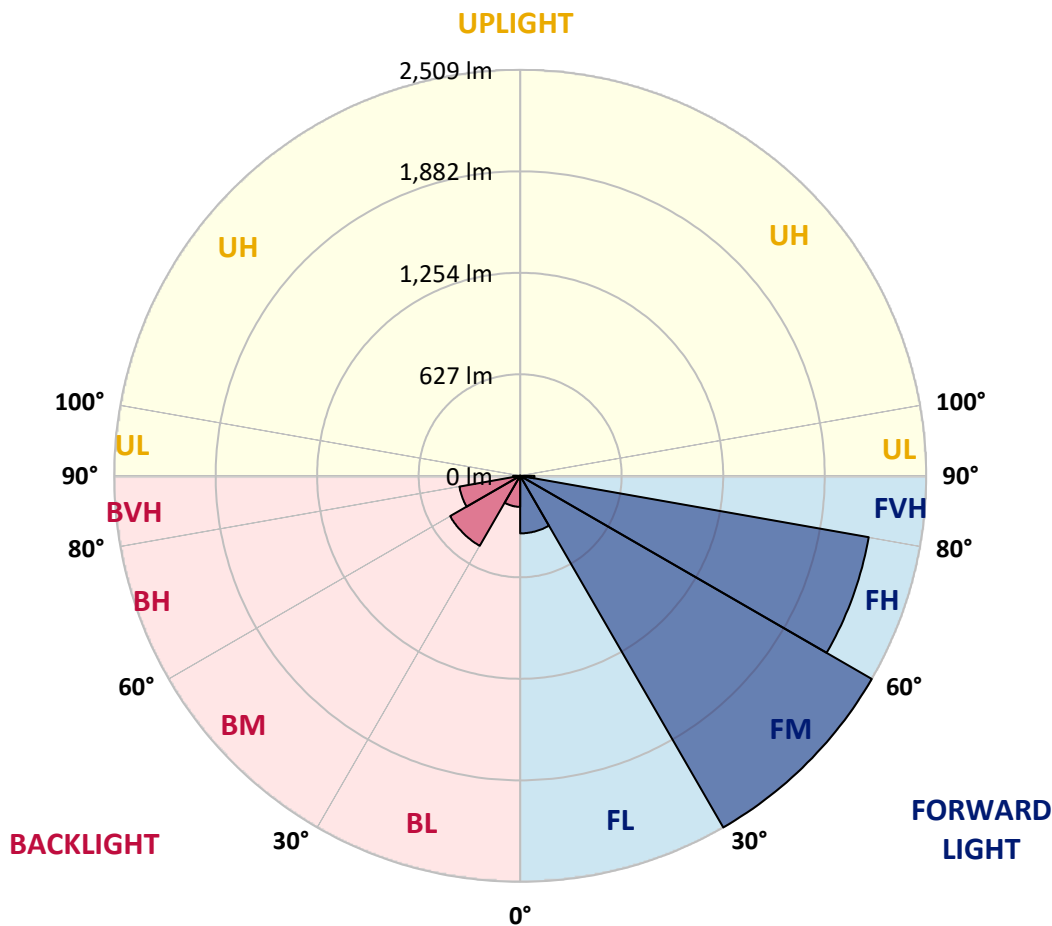
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	355.6	5.7			
FM (30°-60°)	2508.8	40.1			
FH (60°-80°)	2187.0	35.0			G2/5000
FVH (80°-90°)	87.9	1.4			G1/100
BL (0°-30°)	191.7	3.1	B1/500		
BM (30°-60°)	499.4	8.0	B1/1000		
BH (60°-80°)	381.6	6.1	B1/500		G1/500
BVH (80°-90°)	43.9	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	255.1	255.1	255.1	255.1	255.1	255.1	255.1	255.1	255.1	255.1	255.1
2.5°	328.3	316.6	298.9	306.2	315.0	316.1	313.2	297.0	291.6	303.8	307.5
5°	460.0	440.2	428.2	424.3	411.0	383.4	403.2	393.0	395.1	389.1	400.8
7.5°	570.9	557.6	539.9	534.9	504.4	482.7	496.3	491.9	470.5	462.1	475.4
10°	627.2	612.6	613.4	602.7	594.6	596.7	589.9	570.4	554.5	543.2	511.2
12.5°	661.1	664.8	684.3	678.9	709.4	734.4	715.4	686.4	636.1	625.9	594.1
15°	741.7	755.3	737.0	745.4	758.4	806.4	798.6	792.3	739.1	719.3	660.6
17.5°	824.6	827.2	799.6	795.2	826.5	850.7	881.2	846.0	852.5	838.7	743.8
20°	842.4	860.4	820.7	793.3	857.8	905.7	943.6	906.3	940.7	944.3	812.4
22.5°	907.3	885.7	833.5	806.6	863.0	921.9	983.5	1004.3	993.4	962.6	878.6
25°	952.4	941.0	887.8	858.0	879.4	933.7	1041.6	1096.1	1105.8	1101.6	941.7
27.5°	1036.1	1041.9	932.4	940.7	911.0	915.9	1076.6	1217.9	1157.7	1141.0	1020.0
30°	1168.4	1142.8	1020.0	1026.8	977.5	969.1	1150.4	1323.0	1269.0	1249.0	1084.4
32.5°	1306.3	1308.7	1159.5	1101.6	1075.3	1066.9	1135.8	1378.1	1409.9	1383.8	1181.7
35°	1500.9	1487.3	1310.8	1234.6	1139.4	1124.8	1239.8	1537.7	1596.1	1523.1	1297.2
37.5°	1797.2	1756.2	1550.7	1374.7	1304.2	1287.6	1388.5	1680.8	1812.3	1721.5	1486.0
40°	2035.0	1951.8	1765.1	1550.7	1431.5	1452.1	1494.1	1854.5	2036.6	1985.5	1660.8
42.5°	2224.6	2150.8	1916.9	1766.1	1604.2	1578.6	1624.5	2069.7	2341.7	2291.6	1878.8
45°	2406.4	2256.2	2087.4	1951.8	1796.1	1827.1	1820.4	2289.3	2715.9	2561.8	2071.5
47.5°	2585.8	2444.7	2268.2	2085.9	1929.1	2122.4	2050.1	2452.5	2968.4	2854.2	2274.4
50°	2816.4	2661.2	2460.1	2276.8	2182.9	2324.2	2203.0	2590.8	3251.1	3117.1	2465.8
52.5°	2969.4	2818.4	2642.1	2511.2	2502.6	2448.1	2417.1	2765.8	3498.9	3417.5	2668.7
55°	2951.4	2805.9	2726.1	2740.5	2846.9	2663.0	2637.7	3024.7	3757.3	3663.2	2887.8
57.5°	2725.9	2567.0	2584.0	2669.0	2954.8	3040.4	2997.3	3301.4	3987.9	3945.1	3158.8
60°	2123.4	2041.8	2179.7	2335.2	2810.4	3151.0	3453.5	3638.9	4271.6	4339.9	3584.4
62.5°	1379.4	1270.3	1488.4	1752.3	2379.3	3077.9	3918.0	4278.9	4736.3	4891.5	4231.2
65°	714.6	697.1	849.7	1092.2	1656.3	2624.4	4081.7	4950.2	5301.2	5482.0	4849.0
67.5°	519.5	487.2	557.8	700.5	1011.1	1789.6	3771.4	5463.7	5754.8	5920.4	5208.1
70°	395.6	371.6	425.6	514.0	660.3	1010.9	2784.0	5323.7	5929.8	6010.1	5160.4
72.5°	296.3	275.7	322.9	405.3	508.8	569.1	1645.6	4377.2	5631.1	5658.5	4631.5
75°	236.5	220.6	241.0	320.0	414.7	387.3	874.2	3171.3	4575.2	4598.6	3537.7
77.5°	194.0	180.5	188.8	239.9	322.6	291.3	433.7	2017.3	2904.8	2868.8	1990.4
80°	158.3	146.6	150.5	173.4	245.7	217.5	243.6	1052.3	1385.6	1329.8	827.8
82.5°	121.8	111.9	119.7	127.5	177.9	156.2	142.1	478.8	567.5	528.6	303.6
85°	81.6	72.5	104.1	95.7	116.3	96.0	77.7	190.6	211.5	197.2	106.7
87.5°	22.4	21.1	34.9	47.7	47.7	36.3	28.4	46.2	58.9	51.6	25.0
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°	255.1	255.1	255.1	255.1	255.1	255.1	255.1	255.1	255.1	255.1	255.1
2.5°	309.0	303.3	288.2	286.9	290.5	291.1	288.7	283.2	280.4	296.0	293.7
5°	398.0	377.6	365.4	354.2	338.5	327.3	330.2	338.0	340.6	352.3	353.6
7.5°	467.1	440.2	413.4	377.4	353.6	338.5	350.0	358.3	364.9	381.5	388.3
10°	497.1	467.9	429.8	392.0	385.5	388.1	381.5	383.6	393.8	394.6	398.0
12.5°	552.9	519.8	451.2	417.0	415.2	420.7	418.3	428.0	435.0	454.0	446.0
15°	606.4	564.1	467.3	432.4	424.8	435.8	448.6	464.7	479.9	497.9	488.7
17.5°	671.3	607.7	468.1	425.4	426.7	450.1	463.4	472.3	517.4	542.2	529.7
20°	712.2	612.1	450.7	407.9	426.7	447.8	466.3	476.0	526.6	563.8	572.5
22.5°	749.3	613.7	437.1	398.5	410.5	438.4	466.3	487.7	520.0	555.8	557.1
25°	769.6	612.4	419.6	399.3	410.2	424.1	448.8	468.4	492.4	542.2	543.5
27.5°	821.8	595.4	402.4	402.4	408.1	408.7	440.2	451.7	455.1	500.5	508.6
30°	836.9	599.1	400.3	401.9	404.8	399.5	413.4	420.9	425.9	465.0	466.3
32.5°	861.2	569.8	406.6	397.2	393.5	392.8	396.2	402.9	405.0	429.0	433.4
35°	890.6	558.1	408.7	395.9	388.6	384.7	394.8	386.5	393.0	421.2	424.3
37.5°	986.6	541.9	419.4	395.9	386.5	382.1	377.1	381.0	404.2	431.4	448.1
40°	1047.9	546.9	416.8	399.8	379.5	375.3	366.9	381.3	417.3	465.3	477.8
42.5°	1155.3	549.8	419.9	398.0	381.8	365.6	371.1	386.8	424.6	452.0	471.3
45°	1266.4	558.6	417.8	392.5	376.6	384.2	376.6	390.7	408.7	409.5	424.1
47.5°	1375.4	594.4	413.4	381.3	375.3	395.1	375.8	378.2	379.5	384.2	401.4
50°	1503.5	632.4	407.1	365.6	377.1	395.6	378.7	367.2	365.9	381.3	400.6
52.5°	1649.0	675.5	399.0	350.5	366.4	390.7	388.6	368.0	356.8	371.6	390.9
55°	1820.4	724.5	389.6	335.4	354.7	391.2	394.1	362.5	357.0	373.2	393.8
57.5°	2048.0	795.4	371.4	313.5	340.3	383.1	380.0	356.2	351.0	368.2	389.6
60°	2436.6	931.8	345.3	291.8	325.0	363.3	368.5	345.0	339.8	358.9	381.3
62.5°	2956.9	1095.9	313.7	270.7	306.2	341.9	354.2	328.9	328.3	352.6	376.1
65°	3441.2	1189.0	281.1	251.4	286.9	322.1	338.0	313.7	314.8	345.3	368.8
67.5°	3642.6	1079.4	251.9	234.2	264.7	299.4	324.7	302.0	298.6	335.4	357.0
70°	3453.5	857.5	226.6	215.9	239.7	274.9	306.2	286.4	278.5	311.9	328.9
72.5°	3055.8	714.8	202.9	194.6	217.8	249.1	281.1	265.2	255.1	280.6	295.7
75°	2388.6	586.5	175.8	173.4	192.7	225.6	255.1	244.1	231.1	247.2	262.4
77.5°	1360.1	371.1	147.6	149.2	163.0	197.7	223.8	215.2	201.9	208.6	226.1
80°	544.3	187.3	118.7	119.7	131.4	162.5	185.4	182.3	168.5	174.0	185.9
82.5°	203.4	102.8	87.6	88.1	99.9	128.6	158.3	156.7	143.7	139.8	146.6
85°	80.8	50.9	53.7	56.1	67.3	92.6	127.0	112.7	97.3	85.3	89.5
87.5°	19.3	16.2	18.8	19.8	21.9	28.9	46.4	37.3	38.3	30.8	23.0
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)