

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: P366748

Luminaire Tested: **MSA-SA1B-727-U-T3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366748
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-10)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-727-U-T3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4229 lumens
Efficiency: N/A
Efficacy: 96.1 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

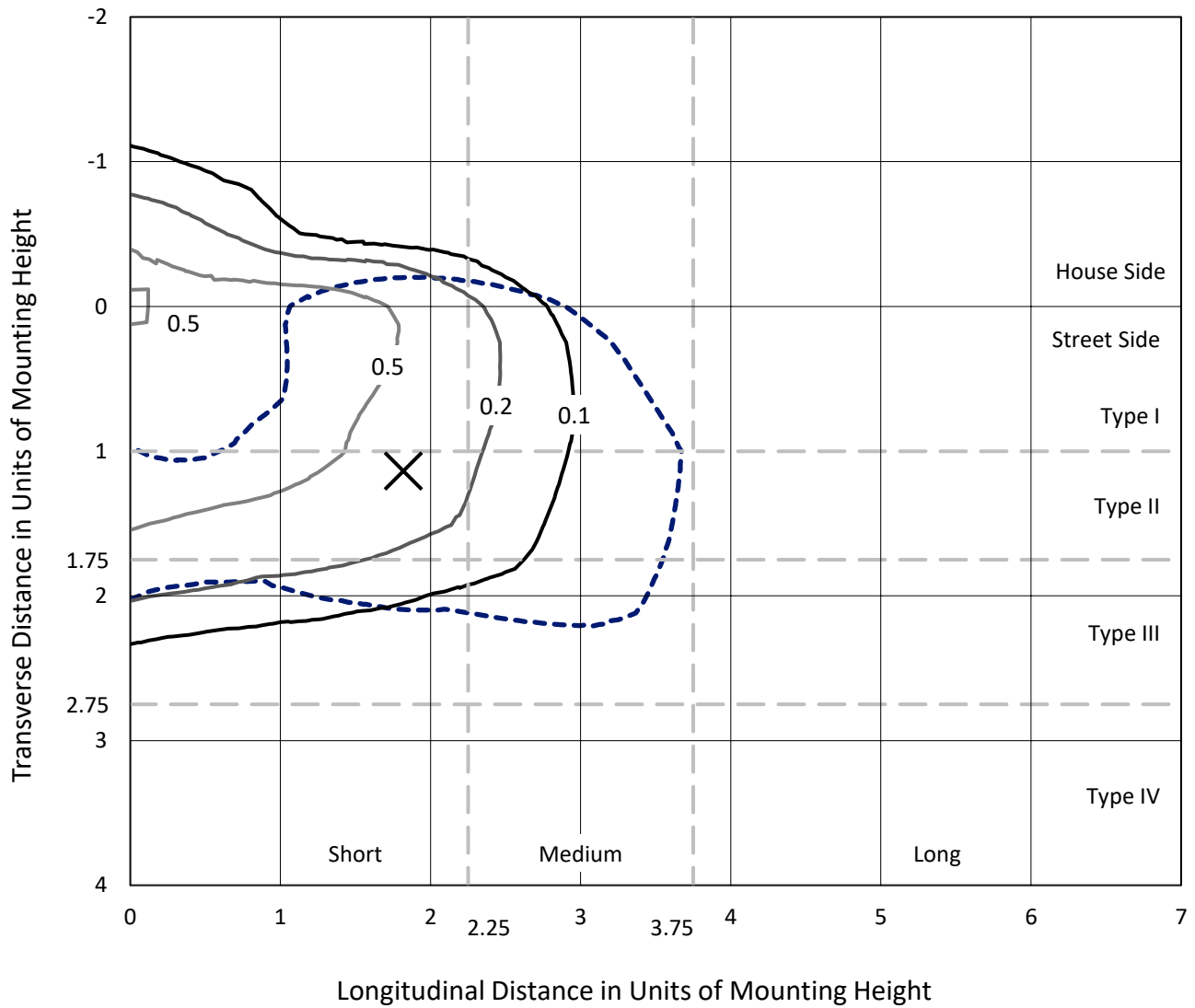
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

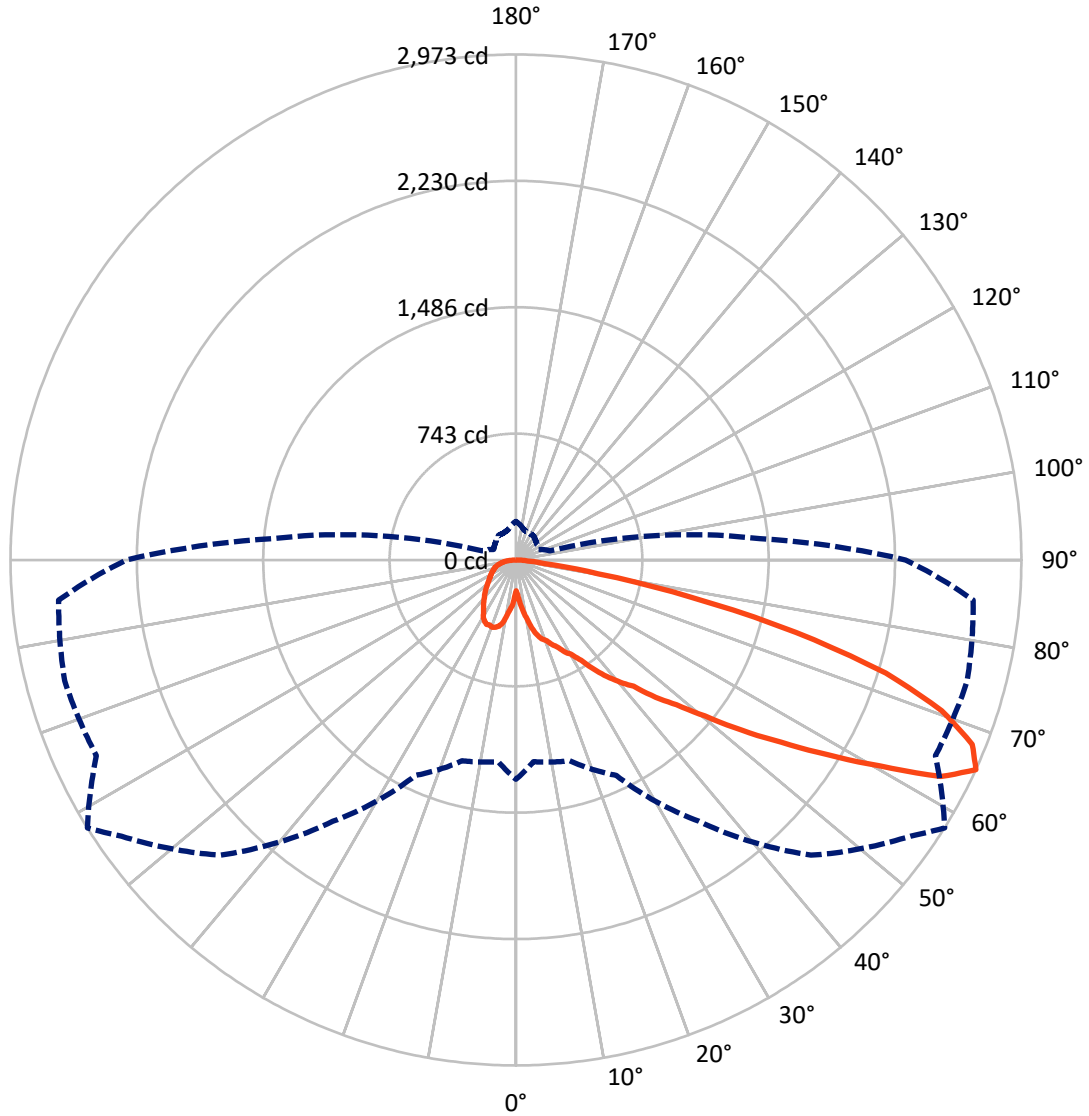
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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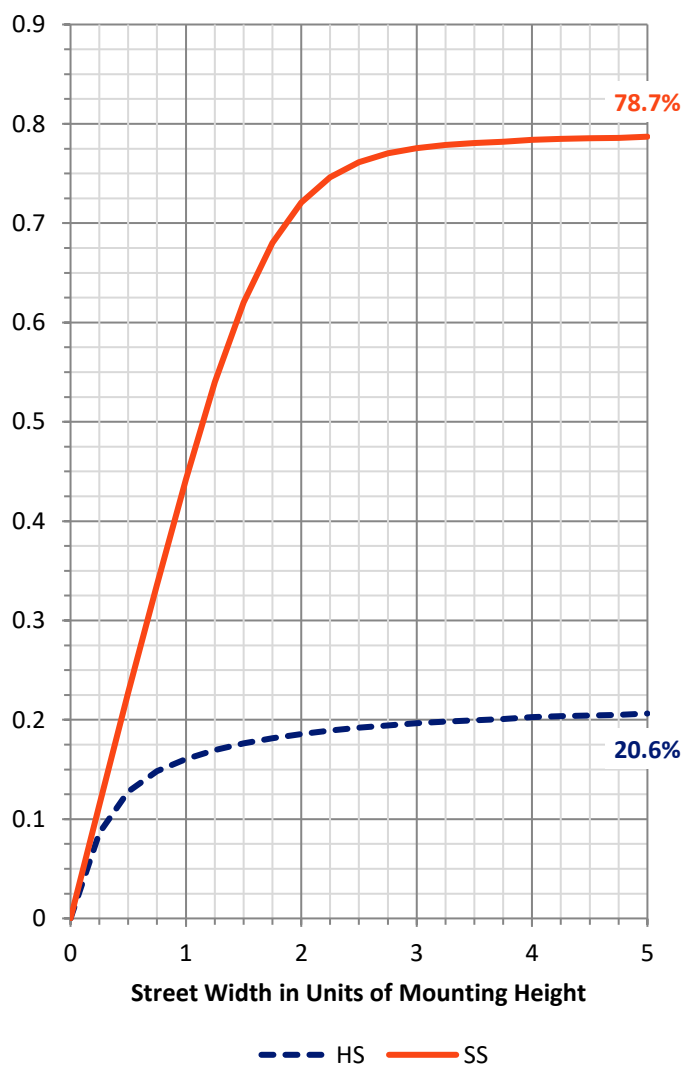
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	890.8	0.0	890.8
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	3338.2	0.0	3338.2
	% Fixture	78.9	0.0	78.9
Total	Lumens	4229.0	0.0	4229.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.7	0.7
10°-20°	120.7	2.9
20°-30°	231.6	5.5
30°-40°	382.3	9.0
40°-50°	635.5	15.0
50°-60°	1049.5	24.8
60°-70°	1177.4	27.8
70°-80°	535.3	12.7
80°-90°	69.0	1.6
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°	4229.0	100.0
0°-180°	4229.0	100.0

Coefficient of Utilization



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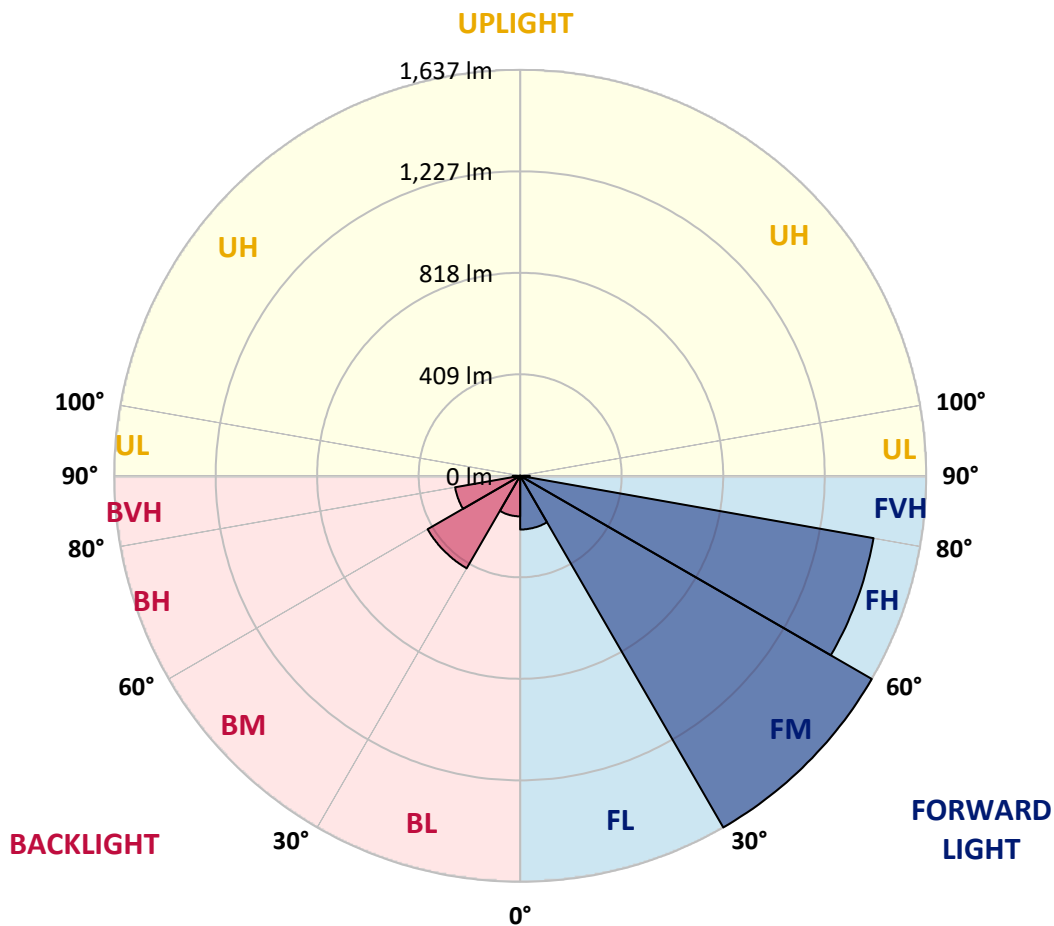
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	216.4	5.1			
FM (30°-60°)	1636.6	38.7			
FH (60°-80°)	1446.4	34.2			G1/1800
FVH (80°-90°)	38.9	0.9			G1/100
BL (0°-30°)	163.5	3.9	B1/500		
BM (30°-60°)	430.8	10.2	B1/1000		
BH (60°-80°)	266.3	6.3	B1/500		G1/500
BVH (80°-90°)	30.2	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-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	181.6	181.6	181.6	181.6	181.6	181.6	181.6	181.6	181.6	181.6	181.6
2.5°	216.8	210.3	199.4	202.0	208.3	211.9	209.8	206.9	203.2	202.5	218.7
5°	280.7	268.2	263.1	261.0	253.3	248.7	256.6	255.5	259.8	267.5	283.4
7.5°	327.4	318.6	310.1	309.3	294.3	289.0	299.6	305.2	312.8	313.0	334.4
10°	352.4	344.8	344.7	336.7	335.5	345.5	345.7	349.9	350.8	359.8	355.6
12.5°	379.5	379.0	388.7	388.5	399.8	416.3	408.1	408.1	410.5	399.6	413.0
15°	444.2	449.8	431.7	434.7	434.7	450.9	450.3	453.5	461.1	458.2	452.3
17.5°	511.4	515.0	494.9	476.2	477.6	474.1	486.8	488.0	480.8	513.5	506.3
20°	554.8	568.5	526.2	502.8	507.4	511.4	512.0	504.4	500.7	551.1	541.2
22.5°	608.3	596.7	557.9	532.0	538.9	533.5	532.4	538.2	543.3	562.3	578.4
25°	644.1	643.2	596.7	568.3	560.7	559.2	569.9	567.6	579.8	614.3	604.2
27.5°	696.0	712.2	629.8	636.8	603.5	568.5	603.0	613.4	635.2	629.6	652.0
30°	796.7	784.6	698.5	696.5	658.8	629.4	653.4	644.6	683.9	682.6	699.2
32.5°	879.0	887.4	779.1	758.9	730.9	695.5	679.6	704.1	725.2	759.9	769.3
35°	966.0	964.1	861.7	820.9	774.6	759.9	779.5	789.7	834.6	866.5	844.3
37.5°	1101.2	1085.9	968.8	891.5	856.8	851.5	885.0	870.2	918.8	926.4	938.9
40°	1227.0	1180.8	1066.7	978.1	923.0	942.7	943.8	945.7	971.8	992.4	1054.2
42.5°	1346.6	1314.2	1166.2	1099.7	1018.5	999.3	1011.2	1015.3	1081.2	1123.3	1208.8
45°	1510.0	1423.2	1309.2	1240.9	1150.0	1125.5	1117.1	1152.0	1215.5	1311.3	1384.8
47.5°	1648.3	1569.9	1461.2	1371.2	1269.6	1339.5	1291.6	1272.1	1357.5	1476.2	1593.1
50°	1762.9	1676.6	1570.1	1518.1	1501.9	1564.2	1439.9	1442.2	1520.4	1687.9	1821.9
52.5°	1851.7	1759.6	1665.2	1638.7	1729.3	1765.2	1675.4	1661.8	1718.9	1916.8	2077.8
55°	1934.6	1836.9	1764.0	1817.9	1970.4	1974.4	1968.1	1892.9	1961.6	2162.2	2342.7
57.5°	1955.9	1850.6	1802.2	1879.5	2085.7	2246.2	2309.2	2161.6	2231.5	2385.3	2569.5
60°	1846.2	1756.0	1736.7	1841.6	2148.1	2382.7	2547.3	2459.1	2432.8	2564.4	2728.4
62.5°	1621.5	1516.9	1532.5	1678.4	2082.4	2436.7	2735.4	2804.3	2645.4	2706.9	2797.8
65°	1290.6	1190.7	1222.4	1397.8	1876.1	2454.7	2831.6	2972.8	2722.2	2747.2	2699.5
67.5°	910.2	819.5	859.4	1086.3	1560.7	2224.7	2848.1	2894.3	2640.5	2632.2	2431.1
70°	515.7	458.8	502.1	691.2	1101.6	1772.2	2718.3	2657.6	2494.0	2376.7	2034.1
72.5°	236.5	217.0	237.8	351.9	634.2	1179.3	2219.2	2274.3	2148.9	2002.2	1547.5
75°	125.7	118.9	127.7	175.8	296.8	641.6	1576.8	1700.7	1634.0	1518.6	1009.5
77.5°	93.5	88.2	92.5	113.9	158.5	251.0	895.9	1052.3	1077.6	971.4	560.6
80°	71.7	67.5	71.7	86.1	109.7	119.2	383.0	490.5	558.6	451.4	222.8
82.5°	53.2	50.4	56.9	64.6	77.1	74.5	136.0	169.2	218.2	149.2	86.8
85°	42.3	38.7	41.2	43.9	49.3	40.9	62.2	69.6	73.6	61.6	32.1
87.5°	16.6	15.3	29.9	23.6	20.1	12.3	18.7	21.1	21.7	20.8	9.3
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°	181.6	181.6	181.6	181.6	181.6	181.6	181.6	181.6	181.6	181.6	181.6
2.5°	220.5	218.7	208.3	211.7	217.1	218.2	220.5	214.2	211.0	222.6	223.1
5°	284.8	275.3	270.3	270.9	267.3	261.9	270.2	275.6	277.7	286.4	289.5
7.5°	334.6	323.2	314.9	305.4	292.0	283.4	297.8	308.4	314.0	332.0	339.0
10°	356.8	347.6	345.9	333.9	333.6	333.4	332.7	329.0	341.1	339.4	344.3
12.5°	402.6	400.7	383.9	379.2	379.7	379.2	364.4	363.7	363.9	380.1	374.2
15°	445.2	445.6	430.2	413.0	397.5	392.7	386.9	384.3	388.2	397.3	391.7
17.5°	497.9	499.6	455.8	428.5	408.1	407.5	393.6	377.2	400.8	406.5	400.3
20°	531.9	524.5	470.6	424.8	419.0	403.1	385.9	363.3	383.8	397.5	401.4
22.5°	564.1	551.2	484.3	431.3	403.5	384.6	367.9	353.3	359.8	375.1	372.7
25°	585.9	582.4	503.3	447.0	402.9	361.0	338.5	329.2	332.5	356.3	354.0
27.5°	638.1	600.0	500.0	451.0	386.0	328.8	317.5	307.5	304.1	329.9	336.9
30°	672.9	657.3	522.4	444.7	364.7	302.4	285.8	283.7	284.8	314.0	315.9
32.5°	732.1	691.4	559.0	420.4	333.7	282.8	263.8	264.7	269.5	290.8	295.2
35°	793.7	769.4	563.9	402.9	308.6	262.1	254.3	248.1	250.8	269.5	270.3
37.5°	908.2	824.2	594.2	376.0	290.1	254.1	239.3	233.9	235.3	245.9	253.4
40°	1009.0	934.3	580.1	349.9	267.2	243.6	225.1	221.0	216.8	227.2	231.9
42.5°	1170.5	1012.8	575.4	321.2	256.4	229.3	216.6	205.9	201.8	210.6	219.3
45°	1332.0	1096.1	549.5	292.2	241.3	228.2	204.3	194.1	195.1	203.1	211.9
47.5°	1511.9	1208.0	505.6	264.0	224.7	223.1	192.0	187.6	190.7	199.5	208.3
50°	1724.7	1326.7	469.3	238.6	212.9	207.8	190.4	185.1	188.1	198.5	207.1
52.5°	1957.3	1456.8	442.9	215.2	199.5	195.7	192.5	187.4	190.9	199.9	208.9
55°	2188.6	1575.7	425.0	199.2	188.1	190.6	196.9	193.2	195.0	201.7	210.6
57.5°	2360.1	1638.4	388.9	182.1	178.8	187.6	197.4	191.3	192.3	201.7	211.3
60°	2459.8	1650.4	329.5	168.2	171.4	181.6	192.0	184.0	183.3	198.7	210.8
62.5°	2448.9	1580.8	261.4	155.5	162.9	172.6	183.7	176.1	178.1	199.0	211.9
65°	2292.5	1438.7	207.8	144.8	152.7	162.7	176.8	173.8	183.2	213.1	227.0
67.5°	2017.7	1231.0	167.0	134.7	143.2	156.0	181.6	189.5	193.5	227.5	241.8
70°	1635.2	956.5	139.1	125.9	135.6	159.2	195.3	193.7	190.4	220.7	231.9
72.5°	1181.4	655.7	122.4	117.3	126.3	149.7	195.7	187.2	183.0	201.5	209.6
75°	739.2	391.2	106.9	106.4	112.0	134.2	186.9	179.3	167.8	177.0	187.6
77.5°	422.1	200.2	90.0	94.7	98.1	116.4	167.3	160.4	150.2	154.1	164.5
80°	161.1	96.9	75.9	84.2	83.3	98.6	141.8	140.2	128.6	129.8	136.1
82.5°	75.9	54.2	63.0	72.4	67.6	78.5	115.2	114.7	104.4	94.6	99.7
85°	28.2	28.9	46.1	55.1	47.0	50.7	83.3	81.0	71.2	60.1	66.4
87.5°	6.3	10.4	22.7	28.7	16.4	15.7	33.6	29.2	28.2	16.7	17.6
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)