

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: P366746

Luminaire Tested: **MSA-SA1B-727-U-T2**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366746
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-SA1B-727-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: 4224 lumens
Efficiency: N/A
Efficacy: 96.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - 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



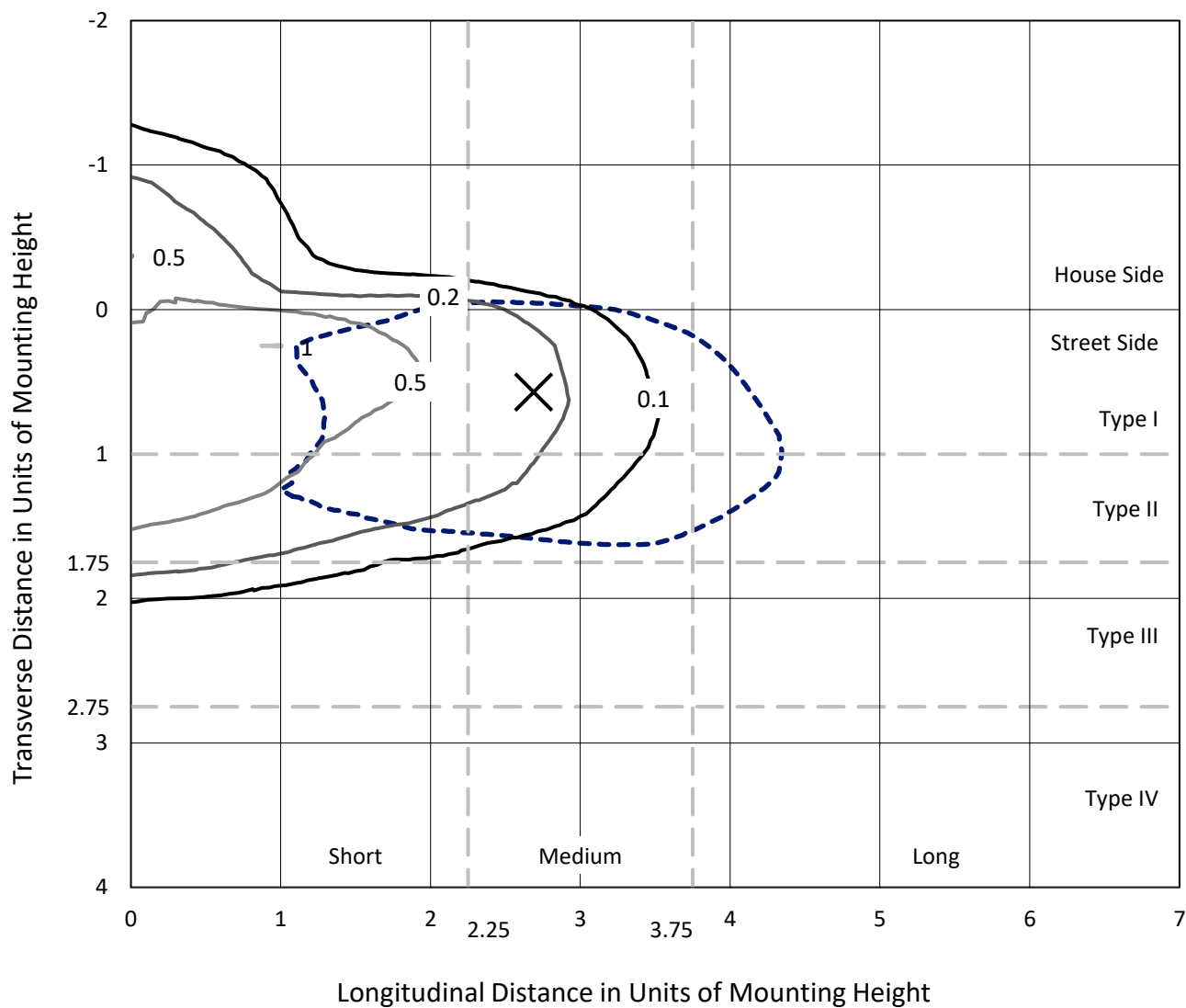
REPORT NUMBER: P366746

CATALOG NUMBER: MSA-SA1B-727-U-T2

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

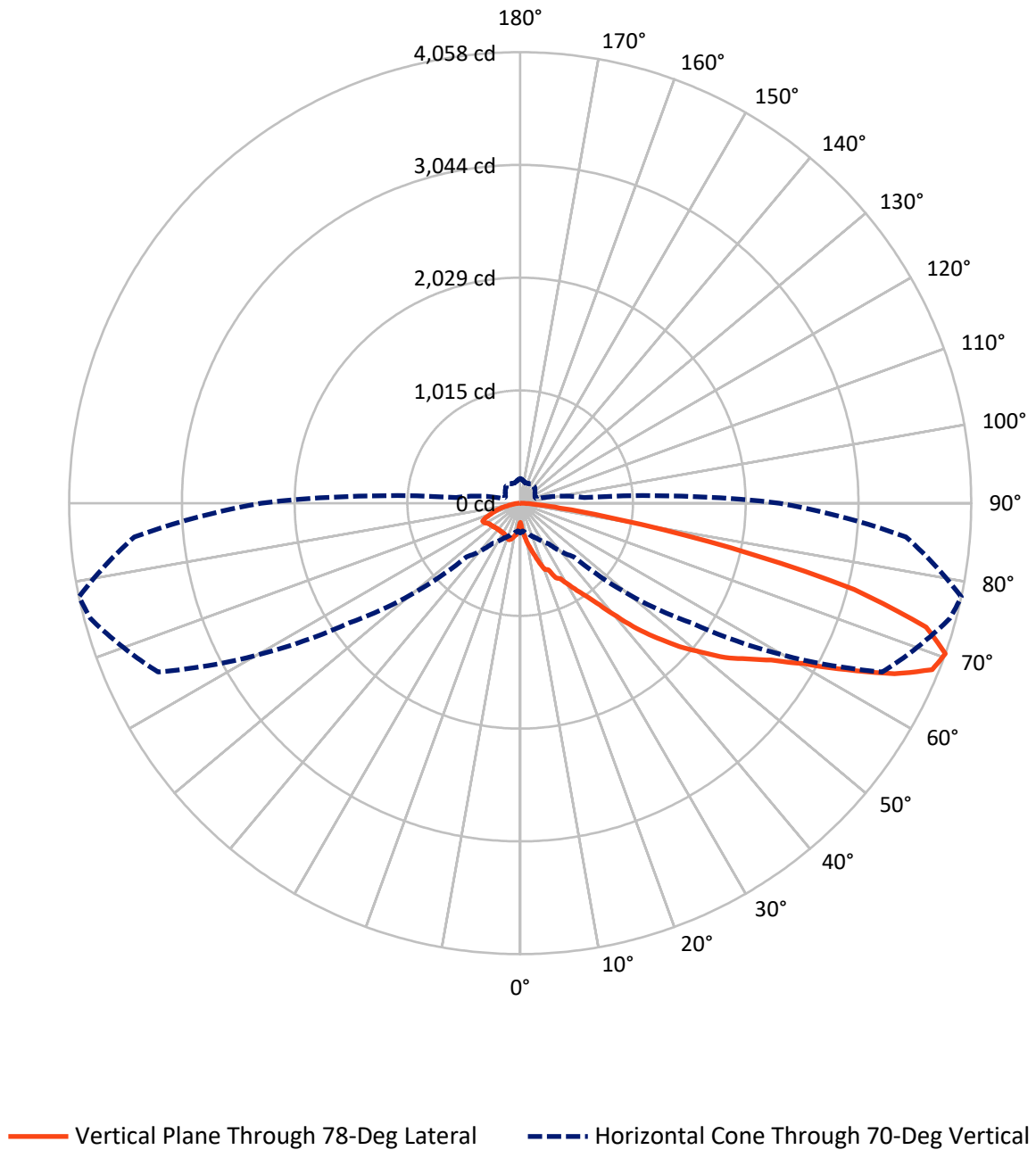
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 fc
 Type II - Medium - N/A

REPORT NUMBER: P366746
CATALOG NUMBER: MSA-SA1B-727-U-T2

Luminous Intensity Polar Plot



REPORT NUMBER: P366746

CATALOG NUMBER: MSA-SA1B-727-U-T2

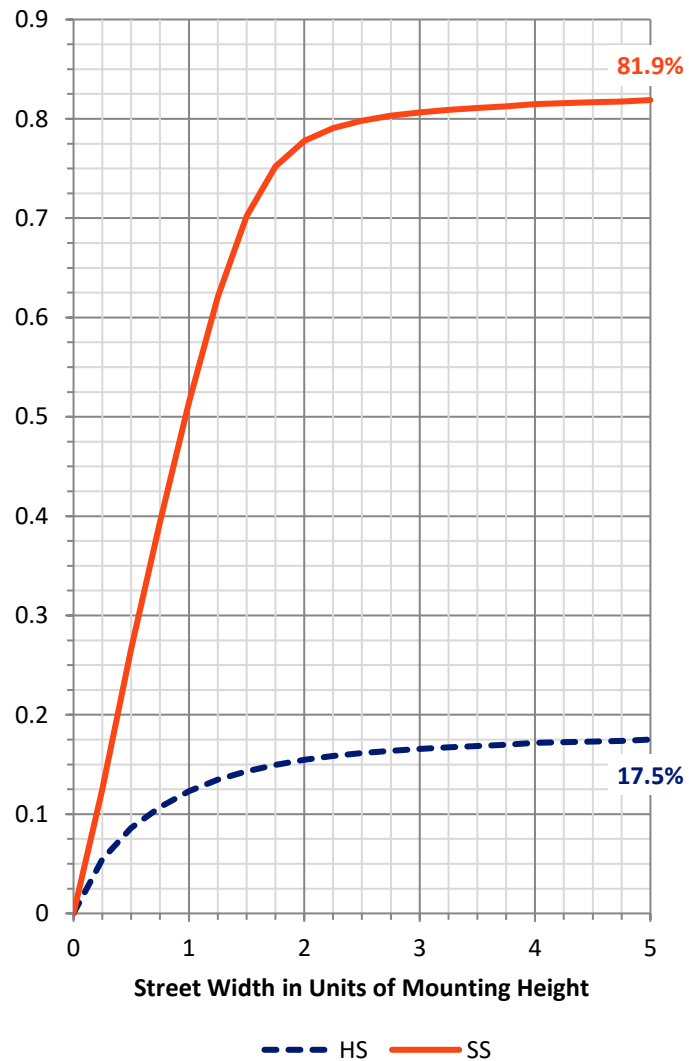
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	753.9	0.0	753.9
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	3470.1	0.0	3470.1
	% Fixture	82.2	0.0	82.2
Total	Lumens	4224.0	0.0	4224.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.6	0.6
10°-20°	117.3	2.8
20°-30°	225.7	5.3
30°-40°	380.2	9.0
40°-50°	657.8	15.6
50°-60°	993.2	23.5
60°-70°	1100.1	26.0
70°-80°	634.2	15.0
80°-90°	89.0	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°	4224.0	100.0
0°-180°	4224.0	100.0

Coefficient of Utilization



REPORT NUMBER: P366746

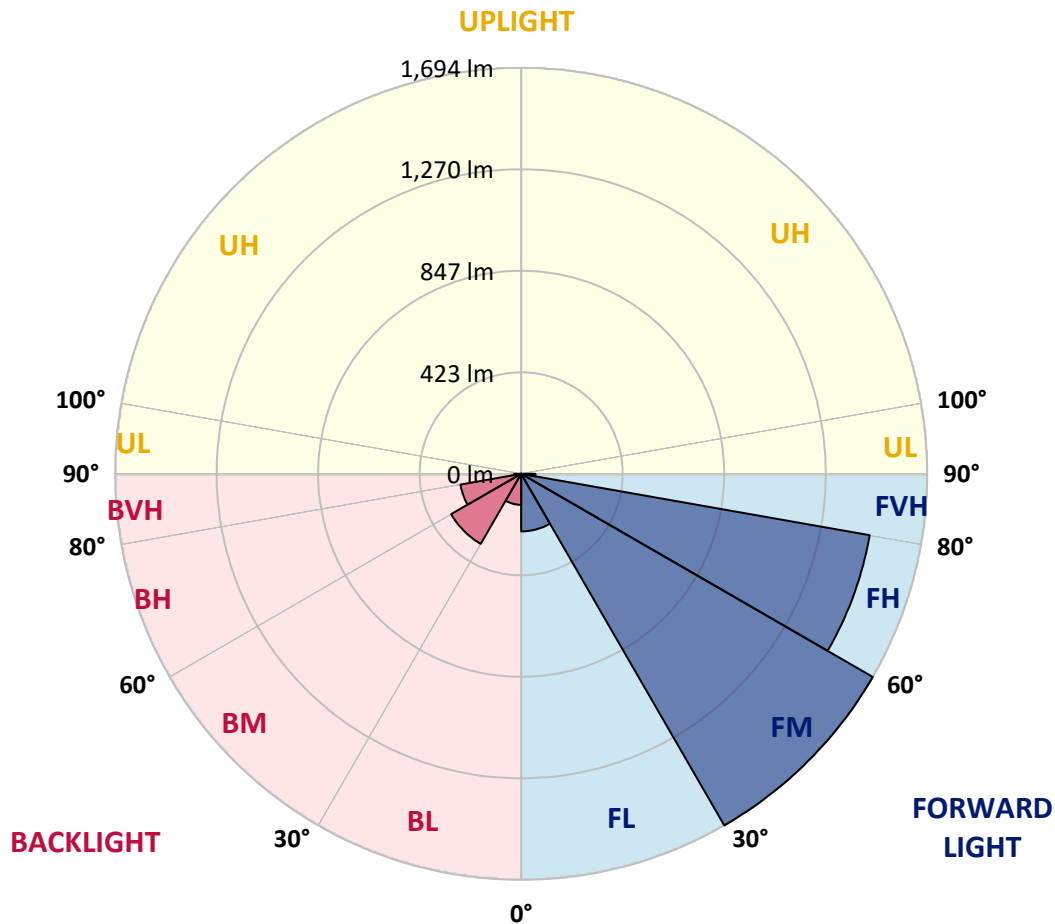
CATALOG NUMBER: MSA-SA1B-727-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	240.1	5.7			
FM	(30°-60°)	1693.9	40.1			
FH	(60°-80°)	1476.7	35.0			G1/1800
FVH	(80°-90°)	59.3	1.4			G1/100
BL	(0°-30°)	129.5	3.1	B1/500		
BM	(30°-60°)	337.2	8.0	B1/1000		
BH	(60°-80°)	257.6	6.1	B1/500		G1/500
BVH	(80°-90°)	29.6	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 II Medium



REPORT NUMBER: P366746

CATALOG NUMBER: MSA-SA1B-727-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	172.2	172.2	172.2	172.2	172.2	172.2	172.2	172.2	172.2	172.2	172.2
2.5°	221.7	213.8	201.8	206.7	212.7	213.4	211.5	200.6	196.9	205.1	207.6
5°	310.6	297.2	289.1	286.5	277.5	258.8	272.2	265.4	266.8	262.7	270.6
7.5°	385.5	376.5	364.5	361.2	340.6	325.9	335.1	332.1	317.7	312.0	321.0
10°	423.5	413.6	414.2	406.9	401.5	402.9	398.3	385.1	374.4	366.8	345.1
12.5°	446.4	448.8	462.1	458.4	479.0	495.9	483.0	463.5	429.5	422.6	401.1
15°	500.8	510.0	497.6	503.3	512.1	544.5	539.2	535.0	499.0	485.7	446.0
17.5°	556.8	558.6	539.9	536.9	558.0	574.4	595.0	571.2	575.6	566.3	502.2
20°	568.8	580.9	554.2	535.7	579.2	611.6	637.1	611.9	635.2	637.6	548.5
22.5°	612.6	598.0	562.8	544.6	582.7	622.5	664.0	678.1	670.7	649.9	593.2
25°	643.1	635.3	599.4	579.3	593.8	630.4	703.3	740.1	746.6	743.8	635.9
27.5°	699.6	703.5	629.5	635.2	615.1	618.4	726.9	822.3	781.7	770.4	688.7
30°	788.9	771.6	688.7	693.3	660.0	654.3	776.7	893.3	856.8	843.3	732.2
32.5°	882.0	883.6	782.9	743.8	726.0	720.4	766.9	930.5	951.9	934.3	797.9
35°	1013.4	1004.2	885.0	833.6	769.3	759.5	837.1	1038.2	1077.7	1028.4	875.9
37.5°	1213.4	1185.8	1047.0	928.2	880.6	869.3	937.5	1134.9	1223.6	1162.4	1003.4
40°	1374.0	1317.8	1191.8	1047.0	966.5	980.5	1008.8	1252.2	1375.1	1340.6	1121.3
42.5°	1502.0	1452.2	1294.2	1192.5	1083.1	1065.9	1096.9	1397.4	1581.1	1547.3	1268.5
45°	1624.8	1523.3	1409.4	1317.8	1212.7	1233.7	1229.1	1545.7	1833.8	1729.7	1398.7
47.5°	1745.9	1650.7	1531.4	1408.4	1302.5	1433.0	1384.2	1655.9	2004.2	1927.1	1535.7
50°	1901.6	1796.8	1661.0	1537.3	1473.9	1569.3	1487.4	1749.3	2195.1	2104.6	1664.9
52.5°	2004.9	1903.0	1784.0	1695.6	1689.7	1652.9	1632.0	1867.4	2362.4	2307.5	1801.9
55°	1992.8	1894.5	1840.7	1850.3	1922.2	1798.0	1781.0	2042.3	2536.9	2473.3	1949.8
57.5°	1840.5	1733.2	1744.7	1802.1	1995.1	2052.8	2023.8	2229.1	2692.6	2663.7	2132.8
60°	1433.7	1378.6	1471.7	1576.7	1897.5	2127.5	2331.8	2457.0	2884.2	2930.3	2420.2
62.5°	931.3	857.7	1004.9	1183.1	1606.5	2078.2	2645.4	2889.1	3197.9	3302.7	2856.9
65°	482.5	470.7	573.7	737.5	1118.3	1772.0	2756.0	3342.3	3579.3	3701.4	3274.0
67.5°	350.8	328.9	376.7	473.0	682.7	1208.3	2546.4	3689.1	3885.6	3997.4	3516.5
70°	267.1	250.9	287.4	347.1	445.9	682.5	1879.7	3594.5	4003.7	4058.0	3484.3
72.5°	200.0	186.1	218.0	273.6	343.5	384.2	1111.1	2955.5	3802.1	3820.6	3127.2
75°	159.7	149.0	162.7	216.1	280.0	261.5	590.2	2141.2	3089.1	3105.0	2388.6
77.5°	131.0	121.9	127.5	162.0	217.8	196.7	292.8	1362.0	1961.3	1937.0	1343.9
80°	106.9	99.0	101.6	117.1	165.9	146.9	164.5	710.5	935.6	897.9	558.9
82.5°	82.2	75.5	80.8	86.1	120.1	105.5	96.0	323.3	383.2	356.9	205.0
85°	55.1	49.0	70.3	64.6	78.5	64.8	52.5	128.7	142.8	133.1	72.0
87.5°	15.1	14.3	23.6	32.2	32.2	24.5	19.2	31.2	39.8	34.9	16.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P366746

CATALOG NUMBER: MSA-SA1B-727-U-T2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	172.2	172.2	172.2	172.2	172.2	172.2	172.2	172.2	172.2	172.2	172.2
2.5°	208.7	204.8	194.6	193.7	196.2	196.5	194.9	191.2	189.3	199.9	198.3
5°	268.7	255.0	246.7	239.1	228.6	221.0	222.9	228.2	230.0	237.9	238.8
7.5°	315.4	297.2	279.1	254.8	238.8	228.6	236.3	241.9	246.3	257.6	262.2
10°	335.6	315.9	290.2	264.7	260.3	262.0	257.6	259.0	265.9	266.4	268.7
12.5°	373.3	350.9	304.6	281.6	280.3	284.0	282.4	289.0	293.7	306.6	301.1
15°	409.4	380.9	315.6	292.0	286.8	294.2	302.9	313.8	324.0	336.2	330.0
17.5°	453.3	410.3	316.1	287.2	288.1	303.9	312.9	318.9	349.4	366.1	357.6
20°	480.9	413.3	304.3	275.4	288.1	302.3	314.8	321.4	355.5	380.7	386.5
22.5°	505.9	414.3	295.1	269.1	277.2	296.0	314.8	329.3	351.1	375.2	376.1
25°	519.6	413.5	283.3	269.6	277.0	286.3	303.0	316.3	332.5	366.1	367.0
27.5°	554.9	402.0	271.7	271.7	275.6	275.9	297.2	305.0	307.3	337.9	343.4
30°	565.1	404.5	270.3	271.4	273.3	269.8	279.1	284.2	287.6	314.0	314.8
32.5°	581.4	384.8	274.5	268.2	265.7	265.2	267.5	272.1	273.5	289.7	292.7
35°	601.3	376.8	275.9	267.3	262.4	259.7	266.6	261.0	265.4	284.4	286.5
37.5°	666.1	365.9	283.2	267.3	261.0	258.0	254.6	257.3	272.9	291.3	302.5
40°	707.5	369.3	281.4	269.9	256.2	253.4	247.8	257.4	281.7	314.1	322.6
42.5°	780.1	371.2	283.5	268.7	257.8	246.9	250.6	261.1	286.7	305.2	318.2
45°	855.1	377.2	282.1	265.0	254.3	259.4	254.3	263.8	275.9	276.5	286.3
47.5°	928.7	401.3	279.1	257.4	253.4	266.8	253.7	255.3	256.2	259.4	271.0
50°	1015.1	427.0	274.9	246.9	254.6	267.1	255.7	247.9	247.1	257.4	270.5
52.5°	1113.4	456.1	269.4	236.7	247.4	263.8	262.4	248.5	240.9	250.9	264.0
55°	1229.1	489.2	263.1	226.4	239.5	264.1	266.1	244.8	241.1	252.0	265.9
57.5°	1382.8	537.1	250.7	211.7	229.8	258.7	256.6	240.5	237.0	248.6	263.1
60°	1645.2	629.2	233.1	197.0	219.4	245.3	248.8	233.0	229.4	242.3	257.4
62.5°	1996.5	739.9	211.8	182.8	206.7	230.9	239.1	222.0	221.7	238.1	253.9
65°	2323.5	802.8	189.8	169.7	193.7	217.5	228.2	211.8	212.5	233.1	249.0
67.5°	2459.4	728.8	170.1	158.1	178.7	202.1	219.2	203.9	201.6	226.4	241.1
70°	2331.8	579.0	153.0	145.8	161.8	185.6	206.7	193.3	188.1	210.6	222.0
72.5°	2063.2	482.7	137.0	131.4	147.0	168.2	189.8	179.1	172.2	189.5	199.7
75°	1612.8	396.0	118.7	117.1	130.1	152.3	172.2	164.8	156.0	166.9	177.1
77.5°	918.3	250.6	99.7	100.7	110.1	133.5	151.1	145.3	136.3	140.9	152.7
80°	367.5	126.4	80.1	80.8	88.7	109.7	125.2	123.1	113.8	117.5	125.6
82.5°	137.3	69.4	59.2	59.5	67.4	86.8	106.9	105.8	97.0	94.4	99.0
85°	54.6	34.3	36.3	37.9	45.4	62.5	85.8	76.1	65.7	57.6	60.4
87.5°	13.0	10.9	12.7	13.4	14.8	19.5	31.3	25.2	25.9	20.8	15.5
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)