

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: P596864

Luminaire Tested: **MSA-SA1B-835-U-T2**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596864
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-8)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-835-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: 4164 lumens
Efficiency: N/A
Efficacy: 94.6 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

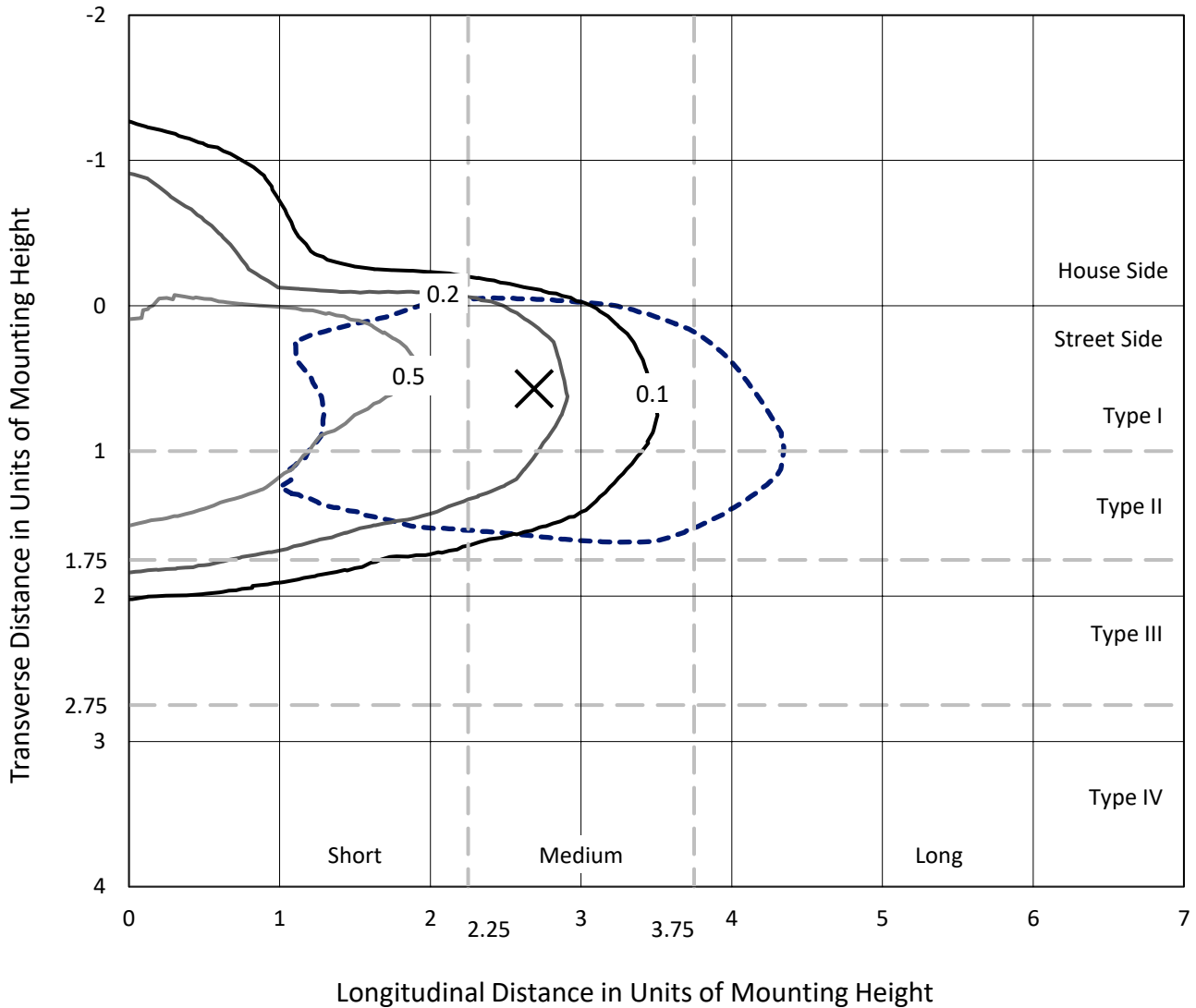
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596864
 CATALOG NUMBER: MSA-SA1B-835-U-T2

Iso-Footcandle Lines of Horizontal Illumination

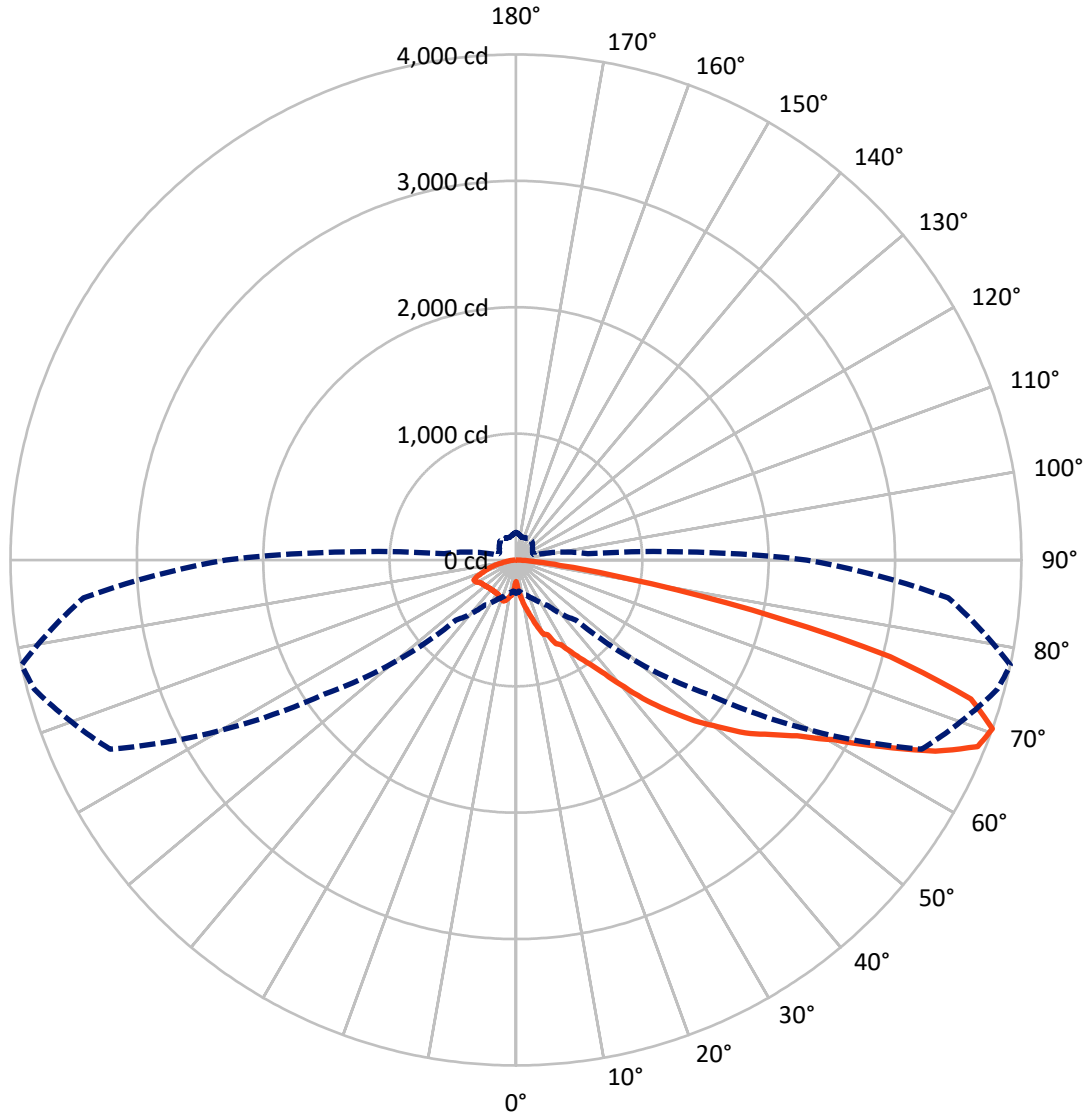
✕ Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P596864
CATALOG NUMBER: MSA-SA1B-835-U-T2

Luminous Intensity Polar Plot



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

REPORT NUMBER: P596864
 CATALOG NUMBER: MSA-SA1B-835-U-T2

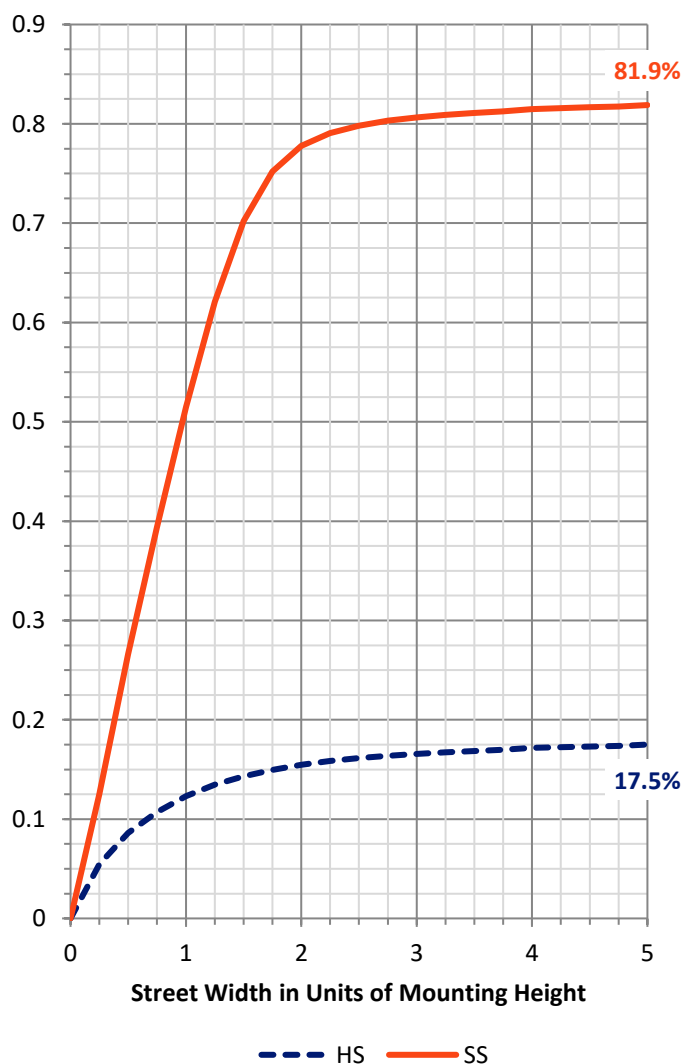
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	743.2	0.0	743.2
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	3420.8	0.0	3420.8
	% Fixture	82.2	0.0	82.2
Total	Lumens	4164.0	0.0	4164.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.2	0.6
10°-20°	115.6	2.8
20°-30°	222.5	5.3
30°-40°	374.8	9.0
40°-50°	648.4	15.6
50°-60°	979.1	23.5
60°-70°	1084.5	26.0
70°-80°	625.2	15.0
80°-90°	87.7	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°	4164.0	100.0
0°-180°	4164.0	100.0

Coefficient of Utilization



REPORT NUMBER: P596864

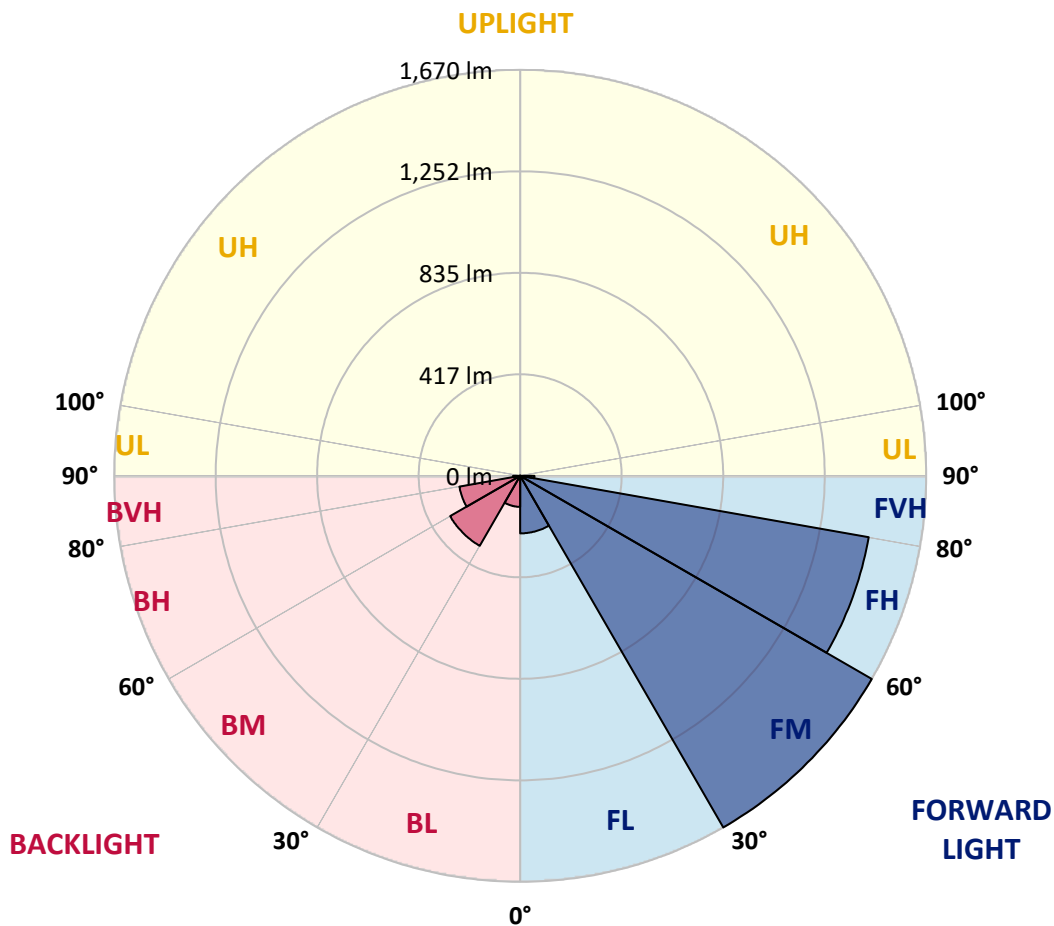
CATALOG NUMBER: MSA-SA1B-835-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	236.7	5.7			
FM (30°-60°)	1669.9	40.1			
FH (60°-80°)	1455.7	35.0			G1/1800
FVH (80°-90°)	58.5	1.4			G1/100
BL (0°-30°)	127.6	3.1	B1/500		
BM (30°-60°)	332.4	8.0	B1/1000		
BH (60°-80°)	254.0	6.1	B1/500		G1/500
BVH (80°-90°)	29.2	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 II Medium





REPORT NUMBER: P596864
 CATALOG NUMBER: MSA-SA1B-835-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	169.8	169.8	169.8	169.8	169.8	169.8	169.8	169.8	169.8	169.8	169.8
2.5°	218.5	210.7	198.9	203.8	209.7	210.4	208.5	197.7	194.1	202.2	204.7
5°	306.2	293.0	285.0	282.4	273.6	255.2	268.4	261.6	263.0	259.0	266.8
7.5°	380.0	371.1	359.3	356.0	335.7	321.3	330.3	327.4	313.2	307.6	316.4
10°	417.5	407.8	408.3	401.2	395.8	397.2	392.7	379.6	369.0	361.6	340.2
12.5°	440.0	442.5	455.5	451.8	472.2	488.8	476.1	456.9	423.4	416.6	395.4
15°	493.7	502.7	490.6	496.1	504.8	536.7	531.5	527.4	491.9	478.8	439.7
17.5°	548.9	550.6	532.2	529.3	550.1	566.2	586.6	563.1	567.5	558.3	495.1
20°	560.7	572.7	546.3	528.1	570.9	602.9	628.0	603.2	626.1	628.6	540.7
22.5°	603.9	589.5	554.8	536.9	574.4	613.6	654.6	668.5	661.2	640.7	584.8
25°	633.9	626.3	590.9	571.1	585.3	621.4	693.3	729.6	736.0	733.2	626.8
27.5°	689.7	693.5	620.6	626.1	606.3	609.6	716.6	810.7	770.6	759.4	678.9
30°	777.7	760.7	678.9	683.4	650.6	645.0	765.7	880.6	844.7	831.3	721.8
32.5°	869.5	871.1	771.8	733.2	715.7	710.1	756.0	917.2	938.4	921.1	786.5
35°	999.0	990.0	872.4	821.8	758.4	748.7	825.2	1023.5	1062.4	1013.7	863.4
37.5°	1196.2	1168.9	1032.1	915.0	868.1	857.0	924.2	1118.8	1206.3	1145.8	989.1
40°	1354.5	1299.1	1174.8	1032.1	952.8	966.5	994.5	1234.4	1355.5	1321.5	1105.4
42.5°	1480.7	1431.6	1275.9	1175.5	1067.7	1050.7	1081.3	1377.6	1558.6	1525.3	1250.5
45°	1601.7	1501.7	1389.4	1299.1	1195.5	1216.2	1211.6	1523.7	1807.7	1705.1	1378.8
47.5°	1721.1	1627.2	1509.7	1388.3	1284.0	1412.7	1364.6	1632.4	1975.8	1899.7	1513.9
50°	1874.6	1771.3	1637.4	1515.4	1452.9	1547.0	1466.3	1724.4	2163.9	2074.7	1641.3
52.5°	1976.5	1876.0	1758.6	1671.5	1665.7	1629.5	1608.8	1840.9	2328.8	2274.7	1776.3
55°	1964.5	1867.6	1814.5	1824.1	1894.9	1772.5	1755.7	2013.3	2500.9	2438.2	1922.1
57.5°	1814.3	1708.6	1719.9	1776.5	1966.7	2023.7	1995.0	2197.4	2654.3	2625.9	2102.5
60°	1413.3	1359.0	1450.8	1554.3	1870.6	2097.3	2298.6	2422.1	2843.2	2888.7	2385.8
62.5°	918.1	845.5	990.7	1166.3	1583.6	2048.7	2607.8	2848.0	3152.5	3255.8	2816.3
65°	475.6	464.0	565.5	727.0	1102.5	1746.8	2716.8	3294.9	3528.5	3648.8	3227.5
67.5°	345.8	324.3	371.3	466.3	673.0	1191.2	2510.2	3636.6	3830.4	3940.6	3466.5
70°	263.3	247.4	283.3	342.1	439.5	672.8	1853.0	3543.4	3946.8	4000.3	3434.8
72.5°	197.2	183.5	214.9	269.8	338.7	378.8	1095.3	2913.5	3748.1	3766.3	3082.7
75°	157.4	146.9	160.4	213.0	276.0	257.8	581.9	2110.8	3045.2	3060.9	2354.7
77.5°	129.1	120.1	125.7	159.7	214.7	193.9	288.7	1342.7	1933.4	1909.5	1324.8
80°	105.4	97.6	100.2	115.4	163.5	144.8	162.1	700.4	922.3	885.1	551.0
82.5°	81.1	74.5	79.7	84.9	118.4	104.0	94.6	318.7	377.7	351.9	202.1
85°	54.3	48.3	69.3	63.7	77.4	63.9	51.7	126.9	140.8	131.2	71.0
87.5°	14.9	14.1	23.3	31.8	31.8	24.1	18.9	30.7	39.2	34.4	16.7
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: P596864
 CATALOG NUMBER: MSA-SA1B-835-U-T2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	169.8	169.8	169.8	169.8	169.8	169.8	169.8	169.8	169.8	169.8	169.8
2.5°	205.7	201.9	191.8	190.9	193.4	193.7	192.2	188.5	186.6	197.0	195.5
5°	264.9	251.4	243.2	235.7	225.3	217.9	219.8	225.0	226.7	234.5	235.4
7.5°	310.9	293.0	275.1	251.2	235.4	225.3	233.0	238.5	242.8	254.0	258.5
10°	330.9	311.4	286.1	260.9	256.6	258.3	254.0	255.3	262.1	262.6	264.9
12.5°	368.0	346.0	300.3	277.6	276.4	280.0	278.4	284.9	289.5	302.2	296.8
15°	403.6	375.5	311.1	287.8	282.8	290.1	298.6	309.3	319.4	331.4	325.3
17.5°	446.8	404.5	311.6	283.1	284.0	299.6	308.5	314.4	344.4	360.9	352.6
20°	474.1	407.4	300.0	271.5	284.0	298.0	310.4	316.8	350.5	375.3	381.0
22.5°	498.7	408.5	290.9	265.2	273.2	291.8	310.4	324.6	346.1	369.9	370.8
25°	512.3	407.6	279.3	265.8	273.1	282.3	298.7	311.8	327.7	360.9	361.8
27.5°	547.0	396.3	267.8	267.8	271.7	272.0	293.0	300.7	302.9	333.1	338.5
30°	557.0	398.7	266.5	267.5	269.4	265.9	275.1	280.2	283.5	309.5	310.4
32.5°	573.2	379.3	270.6	264.4	261.9	261.4	263.7	268.2	269.6	285.6	288.5
35°	592.8	371.5	272.0	263.5	258.6	256.0	262.8	257.3	261.6	280.3	282.4
37.5°	656.7	360.7	279.1	263.5	257.3	254.3	251.0	253.6	269.1	287.1	298.2
40°	697.5	364.0	277.4	266.1	252.6	249.8	244.2	253.8	277.7	309.7	318.0
42.5°	769.0	365.9	279.5	264.9	254.1	243.4	247.0	257.4	282.6	300.8	313.7
45°	842.9	371.8	278.1	261.2	250.7	255.7	250.7	260.0	272.0	272.5	282.3
47.5°	915.5	395.6	275.1	253.8	249.8	263.0	250.1	251.7	252.6	255.7	267.2
50°	1000.7	420.9	271.0	243.4	251.0	263.3	252.0	244.4	243.5	253.8	266.6
52.5°	1097.6	449.6	265.6	233.3	243.9	260.0	258.6	244.9	237.5	247.4	260.2
55°	1211.6	482.2	259.3	223.2	236.1	260.4	262.3	241.3	237.6	248.4	262.1
57.5°	1363.2	529.4	247.2	208.7	226.5	255.0	252.9	237.1	233.6	245.1	259.3
60°	1621.8	620.2	229.8	194.2	216.3	241.8	245.3	229.7	226.2	238.9	253.8
62.5°	1968.1	729.4	208.8	180.2	203.8	227.6	235.7	218.9	218.5	234.7	250.3
65°	2290.5	791.4	187.1	167.3	190.9	214.4	225.0	208.8	209.5	229.8	245.5
67.5°	2424.5	718.5	167.7	155.9	176.2	199.3	216.1	201.0	198.8	223.2	237.6
70°	2298.6	570.8	150.8	143.7	159.5	183.0	203.8	190.6	185.4	207.6	218.9
72.5°	2033.9	475.8	135.1	129.5	144.9	165.8	187.1	176.5	169.8	186.8	196.8
75°	1589.9	390.4	117.0	115.4	128.3	150.2	169.8	162.5	153.8	164.6	174.6
77.5°	905.3	247.0	98.3	99.3	108.5	131.6	148.9	143.2	134.4	138.9	150.5
80°	362.3	124.6	79.0	79.7	87.5	108.1	123.4	121.3	112.1	115.8	123.8
82.5°	135.4	68.4	58.3	58.7	66.5	85.6	105.4	104.3	95.6	93.0	97.6
85°	53.8	33.8	35.8	37.3	44.8	61.6	84.5	75.0	64.7	56.8	59.5
87.5°	12.8	10.8	12.5	13.2	14.6	19.3	30.9	24.8	25.5	20.5	15.3
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)