

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: P596842

Luminaire Tested: **MSA-SA1A-835-U-T2**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596842
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-SA1A-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: 3323 lumens
Efficiency: N/A
Efficacy: 97.7 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

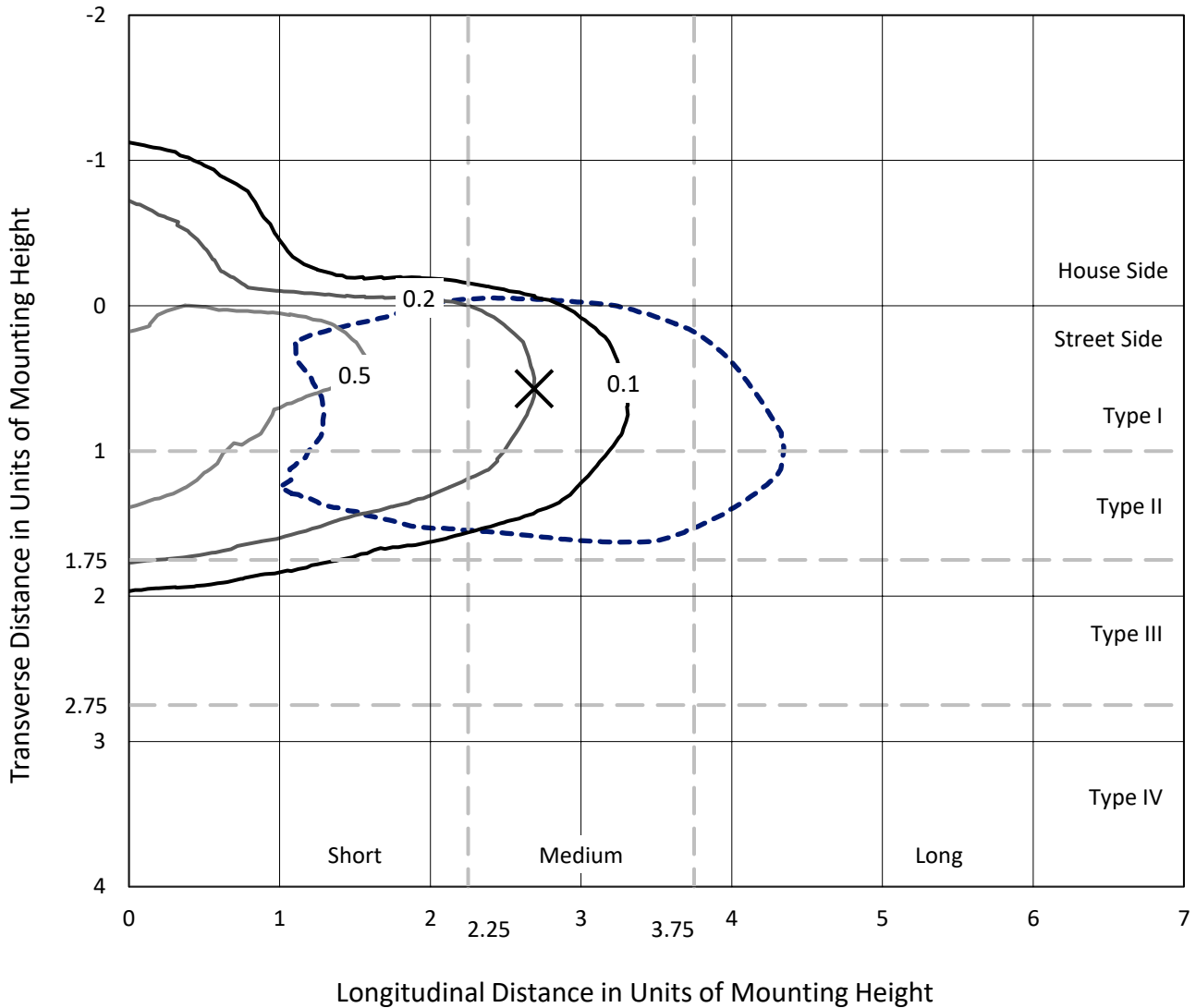
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

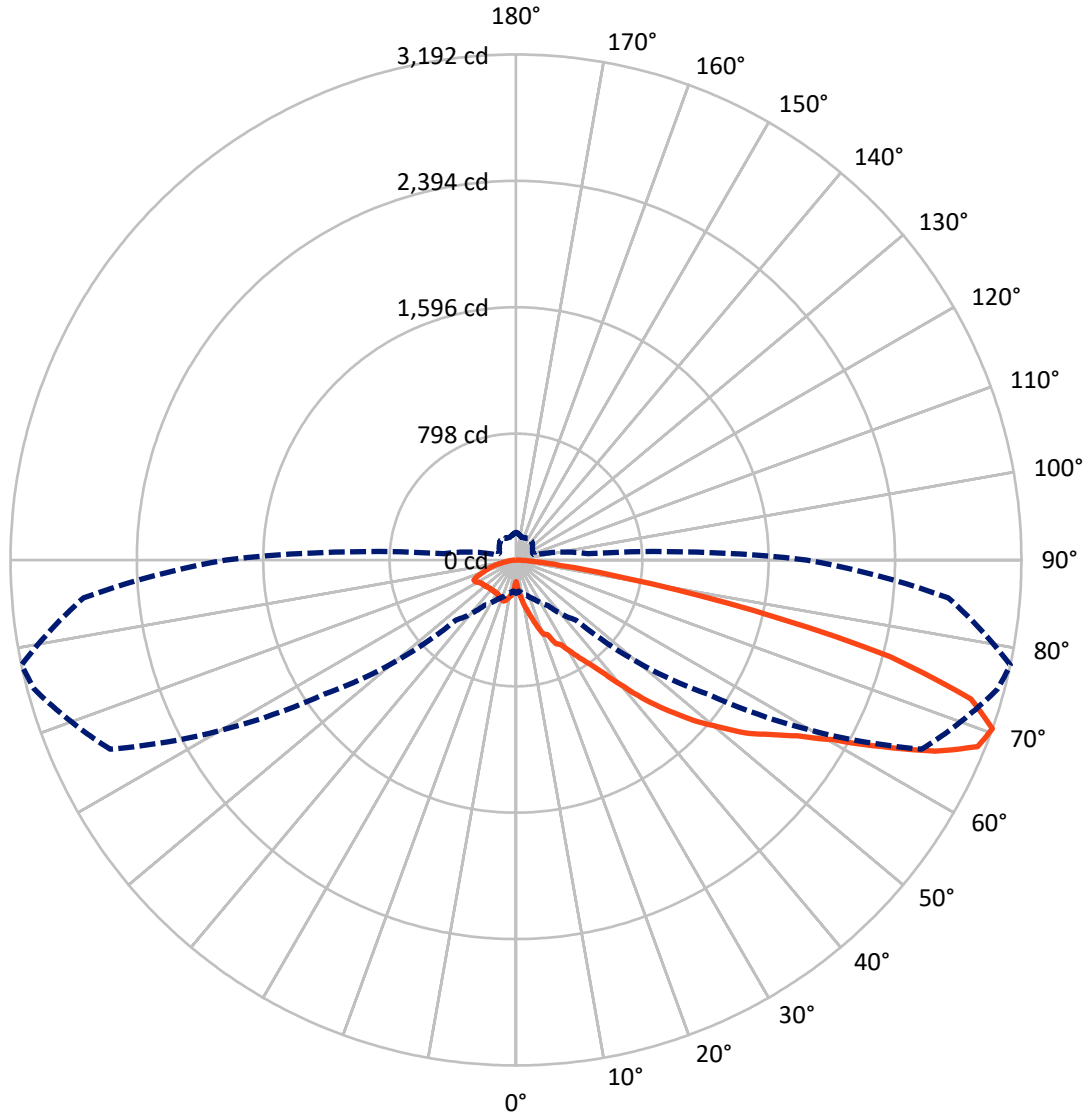
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 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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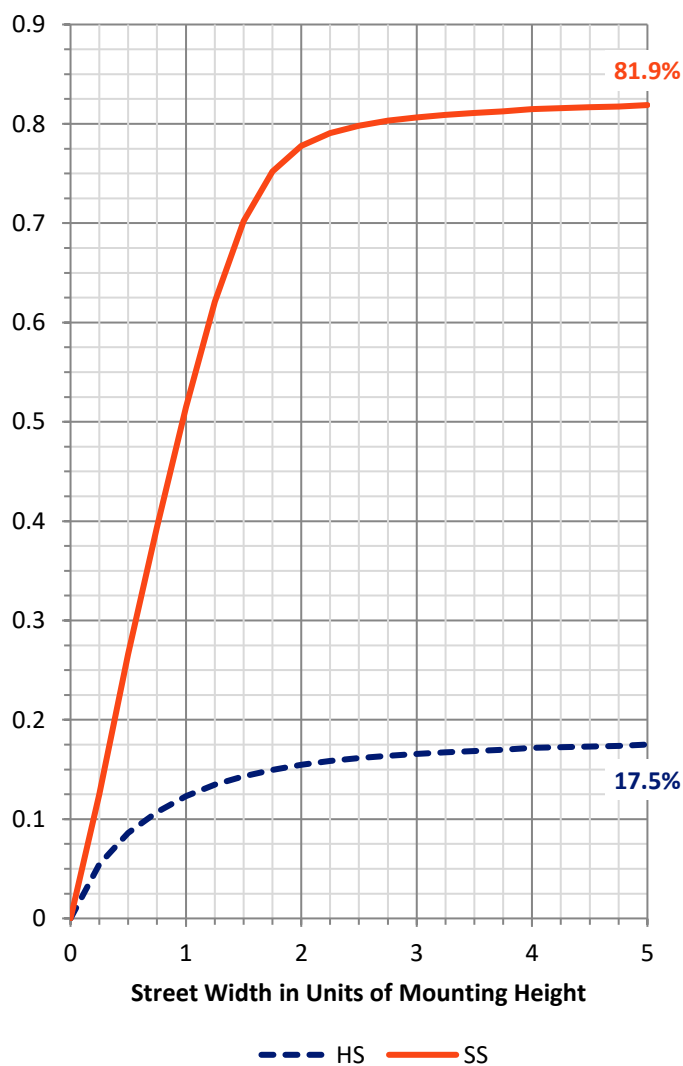
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	593.1	0.0	593.1
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	2729.9	0.0	2729.9
	% Fixture	82.2	0.0	82.2
Total	Lumens	3323.0	0.0	3323.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.9	0.6
10°-20°	92.2	2.8
20°-30°	177.6	5.3
30°-40°	299.1	9.0
40°-50°	517.5	15.6
50°-60°	781.3	23.5
60°-70°	865.4	26.0
70°-80°	499.0	15.0
80°-90°	70.0	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°	3323.0	100.0
0°-180°	3323.0	100.0

Coefficient of Utilization



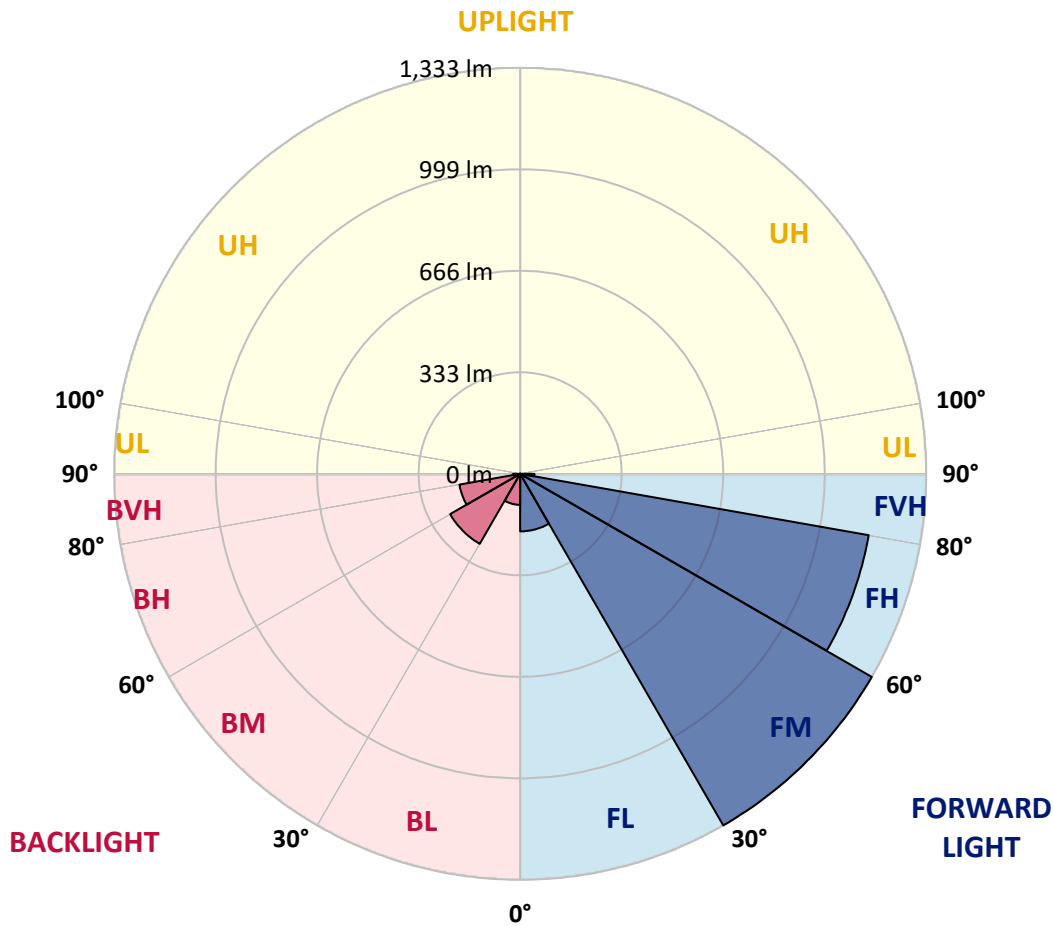
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	188.9	5.7			
FM (30°-60°)	1332.6	40.1			
FH (60°-80°)	1161.7	35.0			G1/1800
FVH (80°-90°)	46.7	1.4			G1/100
BL (0°-30°)	101.8	3.1	B0/110		
BM (30°-60°)	265.3	8.0	B1/1000		
BH (60°-80°)	202.7	6.1	B1/500		G1/500
BVH (80°-90°)	23.3	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	135.5	135.5	135.5	135.5	135.5	135.5	135.5	135.5	135.5	135.5	135.5
2.5°	174.4	168.2	158.8	162.6	167.3	167.9	166.4	157.8	154.9	161.4	163.3
5°	244.4	233.8	227.5	225.4	218.3	203.6	214.2	208.8	209.9	206.7	212.9
7.5°	303.2	296.2	286.8	284.1	267.9	256.4	263.6	261.3	249.9	245.5	252.5
10°	333.2	325.4	325.8	320.1	315.8	317.0	313.3	303.0	294.5	288.6	271.5
12.5°	351.2	353.1	363.5	360.6	376.8	390.1	380.0	364.6	337.9	332.5	315.6
15°	394.0	401.2	391.5	395.9	402.8	428.3	424.2	420.8	392.6	382.1	350.9
17.5°	438.0	439.4	424.7	422.4	439.0	451.9	468.1	449.4	452.8	445.5	395.1
20°	447.4	457.0	435.9	421.4	455.6	481.1	501.2	481.4	499.7	501.6	431.5
22.5°	481.9	470.4	442.7	428.5	458.4	489.7	522.4	533.5	527.7	511.3	466.7
25°	505.9	499.8	471.5	455.8	467.1	495.9	553.3	582.2	587.4	585.1	500.2
27.5°	550.4	553.4	495.2	499.7	483.9	486.5	571.8	646.9	614.9	606.1	541.8
30°	620.6	607.0	541.8	545.4	519.2	514.8	611.0	702.8	674.1	663.4	576.0
32.5°	693.9	695.1	615.9	585.1	571.2	566.7	603.3	732.0	748.9	735.0	627.7
35°	797.2	790.0	696.2	655.8	605.2	597.5	658.6	816.8	847.8	809.0	689.0
37.5°	954.6	932.8	823.7	730.2	692.8	683.9	737.5	892.8	962.6	914.4	789.3
40°	1080.9	1036.7	937.6	823.7	760.4	771.3	793.6	985.1	1081.8	1054.6	882.1
42.5°	1181.6	1142.4	1018.2	938.1	852.1	838.5	862.9	1099.4	1243.8	1217.2	998.0
45°	1278.2	1198.4	1108.8	1036.7	954.0	970.5	966.9	1216.0	1442.6	1360.8	1100.3
47.5°	1373.5	1298.6	1204.8	1107.9	1024.7	1127.3	1089.0	1302.7	1576.7	1516.0	1208.1
50°	1496.0	1413.5	1306.7	1209.3	1159.5	1234.6	1170.1	1376.1	1726.9	1655.7	1309.8
52.5°	1577.3	1497.1	1403.4	1333.9	1329.3	1300.4	1283.9	1469.1	1858.5	1815.3	1417.6
55°	1567.7	1490.4	1448.0	1455.7	1512.2	1414.5	1401.1	1606.6	1995.8	1945.8	1533.9
57.5°	1447.9	1363.5	1372.5	1417.7	1569.5	1615.0	1592.1	1753.6	2118.2	2095.5	1677.8
60°	1127.9	1084.5	1157.8	1240.4	1492.8	1673.7	1834.4	1932.9	2268.9	2305.2	1903.9
62.5°	732.7	674.8	790.6	930.8	1263.8	1634.9	2081.1	2272.8	2515.8	2598.2	2247.5
65°	379.6	370.3	451.3	580.2	879.8	1394.0	2168.1	2629.4	2815.9	2911.9	2575.6
67.5°	275.9	258.8	296.3	372.1	537.1	950.6	2003.3	2902.2	3056.8	3144.7	2766.4
70°	210.1	197.4	226.1	273.0	350.8	536.9	1478.8	2827.8	3149.7	3192.4	2741.1
72.5°	157.4	146.4	171.5	215.3	270.3	302.3	874.1	2325.1	2991.1	3005.6	2460.1
75°	125.6	117.2	128.0	170.0	220.3	205.7	464.3	1684.5	2430.2	2442.7	1879.1
77.5°	103.1	95.9	100.3	127.4	171.4	154.7	230.4	1071.5	1542.9	1523.8	1057.2
80°	84.1	77.9	79.9	92.1	130.5	115.5	129.4	559.0	736.0	706.4	439.7
82.5°	64.7	59.4	63.6	67.7	94.5	83.0	75.5	254.3	301.4	280.8	161.2
85°	43.4	38.5	55.3	50.8	61.8	51.0	41.3	101.3	112.3	104.7	56.7
87.5°	11.9	11.2	18.6	25.4	25.4	19.3	15.1	24.5	31.3	27.4	13.3
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°	135.5	135.5	135.5	135.5	135.5	135.5	135.5	135.5	135.5	135.5	135.5
2.5°	164.2	161.1	153.1	152.4	154.3	154.6	153.4	150.4	148.9	157.2	156.0
5°	211.4	200.6	194.1	188.1	179.8	173.9	175.4	179.5	180.9	187.2	187.8
7.5°	248.1	233.8	219.6	200.4	187.8	179.8	185.9	190.3	193.8	202.7	206.3
10°	264.0	248.5	228.3	208.2	204.7	206.1	202.7	203.8	209.2	209.6	211.4
12.5°	293.7	276.1	239.7	221.5	220.5	223.4	222.2	227.3	231.1	241.2	236.9
15°	322.1	299.6	248.2	229.7	225.7	231.5	238.3	246.9	254.9	264.4	259.6
17.5°	356.6	322.8	248.7	225.9	226.6	239.1	246.2	250.9	274.8	288.0	281.4
20°	378.3	325.1	239.4	216.7	226.6	237.9	247.7	252.8	279.7	299.5	304.1
22.5°	398.0	326.0	232.2	211.7	218.0	232.9	247.7	259.0	276.2	295.2	295.9
25°	408.8	325.3	222.9	212.1	217.9	225.2	238.4	248.8	261.5	288.0	288.7
27.5°	436.5	316.3	213.7	213.7	216.8	217.1	233.8	239.9	241.7	265.8	270.1
30°	444.5	318.2	212.6	213.5	215.0	212.2	219.6	223.6	226.2	247.0	247.7
32.5°	457.4	302.7	216.0	211.0	209.0	208.6	210.4	214.0	215.1	227.9	230.2
35°	473.1	296.4	217.1	210.3	206.4	204.3	209.7	205.3	208.8	223.7	225.4
37.5°	524.1	287.9	222.8	210.3	205.3	202.9	200.3	202.4	214.7	229.1	238.0
40°	556.6	290.5	221.4	212.4	201.6	199.3	194.9	202.5	221.6	247.1	253.8
42.5°	613.7	292.0	223.0	211.4	202.8	194.2	197.1	205.4	225.5	240.1	250.3
45°	672.7	296.7	221.9	208.5	200.0	204.1	200.0	207.5	217.1	217.5	225.2
47.5°	730.6	315.7	219.6	202.5	199.3	209.9	199.6	200.9	201.6	204.1	213.2
50°	798.6	335.9	216.2	194.2	200.3	210.1	201.1	195.0	194.4	202.5	212.8
52.5°	875.9	358.8	211.9	186.2	194.6	207.5	206.4	195.5	189.5	197.4	207.7
55°	966.9	384.8	207.0	178.1	188.4	207.8	209.3	192.6	189.6	198.2	209.2
57.5°	1087.9	422.5	197.3	166.5	180.8	203.5	201.8	189.2	186.5	195.6	207.0
60°	1294.3	495.0	183.4	155.0	172.6	193.0	195.7	183.3	180.5	190.6	202.5
62.5°	1570.6	582.1	166.6	143.8	162.6	181.6	188.1	174.7	174.4	187.3	199.8
65°	1827.9	631.5	149.3	133.5	152.4	171.1	179.5	166.6	167.2	183.4	195.9
67.5°	1934.8	573.4	133.8	124.4	140.6	159.0	172.5	160.4	158.6	178.1	189.6
70°	1834.4	455.5	120.4	114.7	127.3	146.0	162.6	152.1	147.9	165.7	174.7
72.5°	1623.1	379.7	107.8	103.3	115.7	132.3	149.3	140.9	135.5	149.1	157.1
75°	1268.8	311.5	93.4	92.1	102.4	119.8	135.5	129.7	122.7	131.3	139.4
77.5°	722.4	197.1	78.4	79.2	86.6	105.0	118.9	114.3	107.2	110.8	120.1
80°	289.1	99.5	63.0	63.6	69.8	86.3	98.5	96.8	89.5	92.4	98.8
82.5°	108.1	54.6	46.5	46.8	53.1	68.3	84.1	83.3	76.3	74.3	77.9
85°	42.9	27.0	28.5	29.8	35.7	49.2	67.5	59.8	51.7	45.3	47.5
87.5°	10.3	8.6	10.0	10.5	11.6	15.4	24.7	19.8	20.4	16.3	12.2
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)