

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: P366638

Luminaire Tested: **MSA-SA1A-730-U-T3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366638
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-SA1A-730-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: 3675 lumens
Efficiency: N/A
Efficacy: 108.1 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

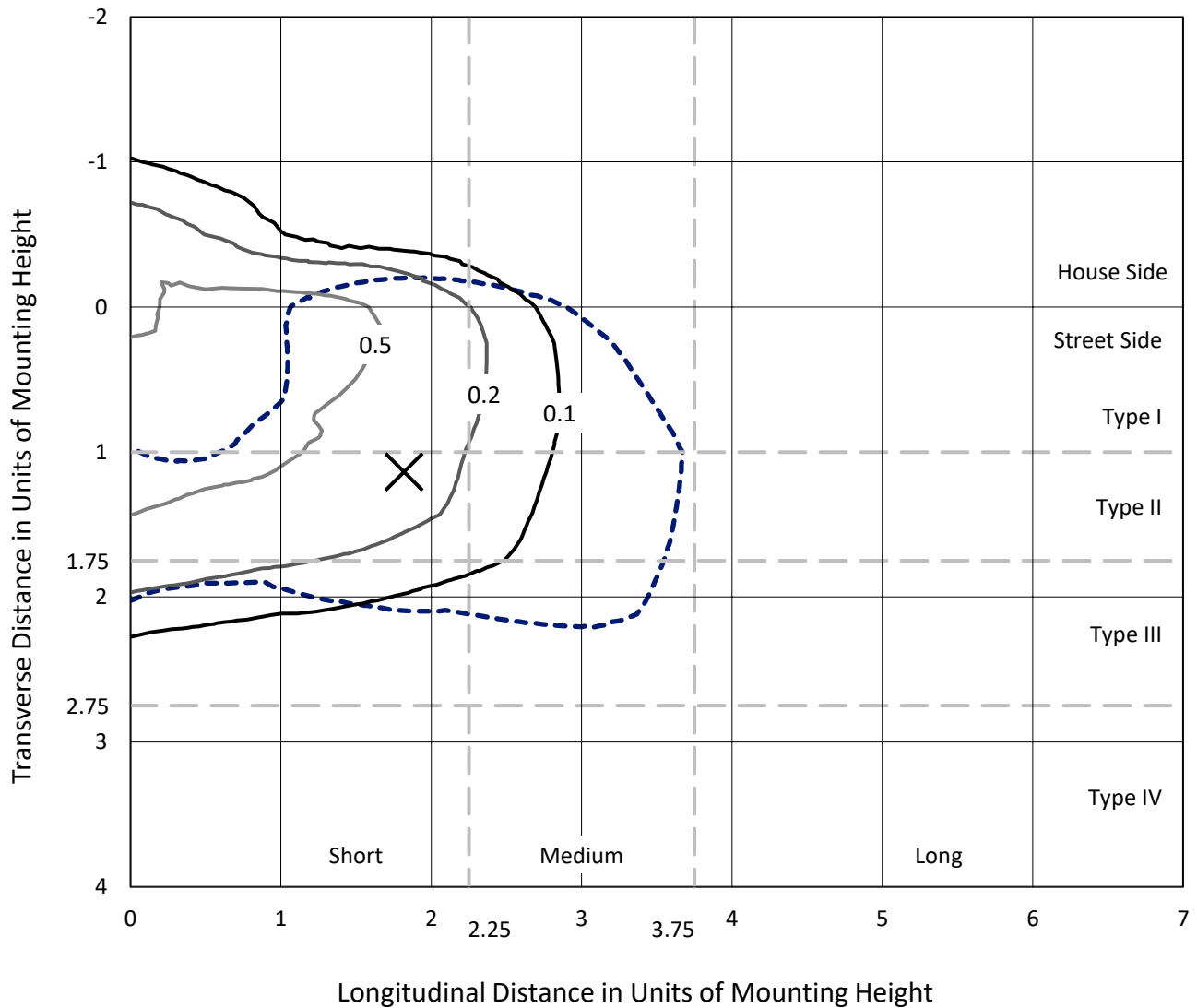
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

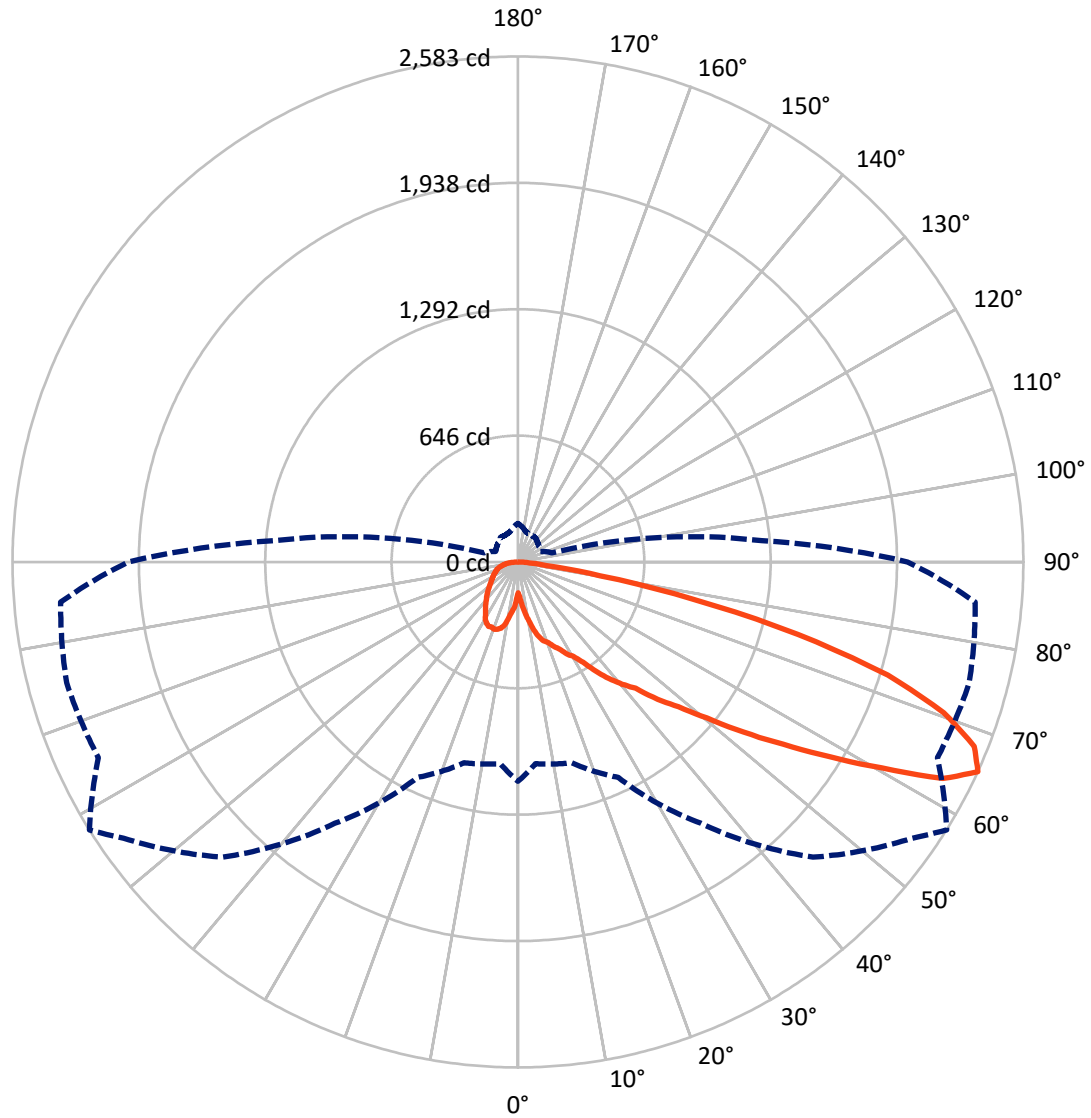
✕ Max cd
 - - - 1/2 Max cd



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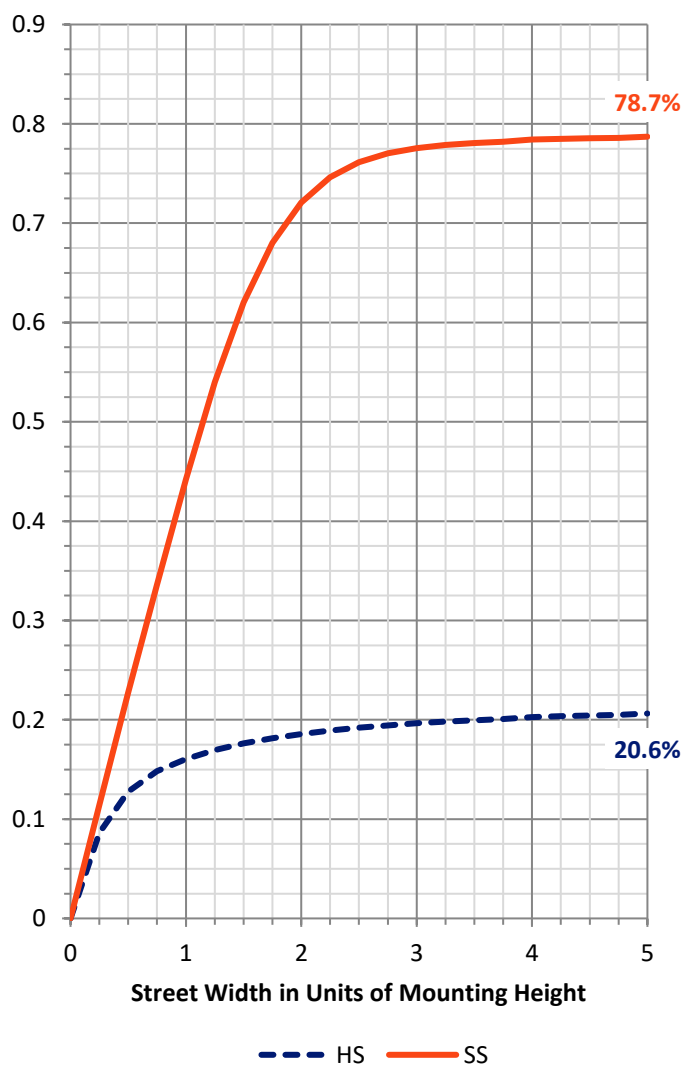
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	774.1	0.0	774.1
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	2900.9	0.0	2900.9
	% Fixture	78.9	0.0	78.9
Total	Lumens	3675.0	0.0	3675.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.0	0.7
10°-20°	104.9	2.9
20°-30°	201.2	5.5
30°-40°	332.3	9.0
40°-50°	552.2	15.0
50°-60°	912.0	24.8
60°-70°	1023.1	27.8
70°-80°	465.2	12.7
80°-90°	60.0	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°	3675.0	100.0
0°-180°	3675.0	100.0

Coefficient of Utilization

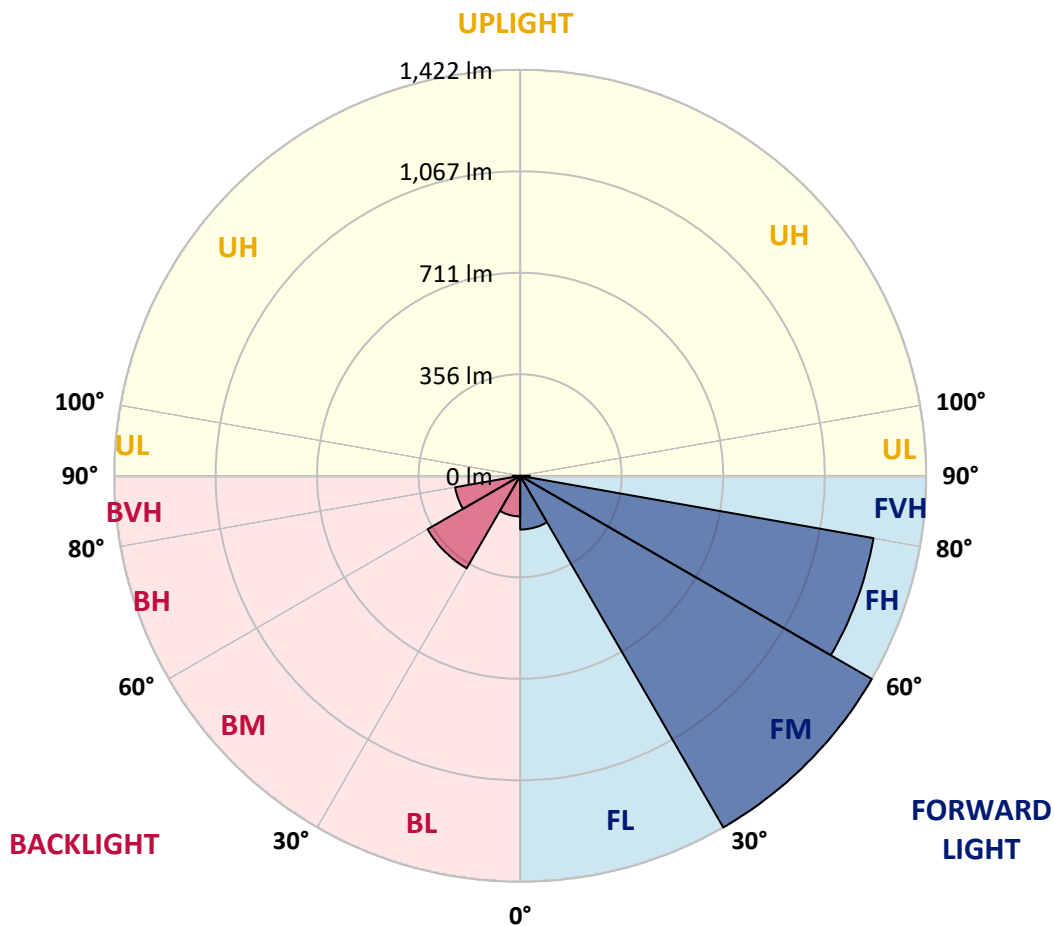


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	188.1	5.1			
FM (30°-60°)	1422.2	38.7			
FH (60°-80°)	1256.9	34.2			G1/1800
FVH (80°-90°)	33.8	0.9			G1/100
BL (0°-30°)	142.1	3.9	B1/500		
BM (30°-60°)	374.4	10.2	B1/1000		
BH (60°-80°)	231.4	6.3	B1/500		G1/500
BVH (80°-90°)	26.2	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°	157.8	157.8	157.8	157.8	157.8	157.8	157.8	157.8	157.8	157.8	157.8
2.5°	188.4	182.7	173.2	175.5	181.1	184.1	182.3	179.8	176.6	176.0	190.1
5°	244.0	233.1	228.6	226.8	220.1	216.1	223.0	222.1	225.7	232.5	246.2
7.5°	284.5	276.9	269.5	268.7	255.7	251.1	260.3	265.2	271.8	272.0	290.6
10°	306.2	299.7	299.5	292.6	291.5	300.3	300.4	304.1	304.9	312.7	309.0
12.5°	329.8	329.3	337.8	337.6	347.4	361.8	354.6	354.6	356.7	347.3	358.9
15°	386.0	390.9	375.1	377.7	377.7	391.8	391.3	394.1	400.7	398.2	393.0
17.5°	444.4	447.5	430.1	413.8	415.1	412.0	423.0	424.1	417.8	446.3	440.0
20°	482.1	494.0	457.3	436.9	440.9	444.4	444.9	438.3	435.1	478.9	470.3
22.5°	528.6	518.5	484.8	462.3	468.3	463.6	462.7	467.7	472.1	488.7	502.6
25°	559.7	558.9	518.5	493.9	487.3	485.9	495.2	493.3	503.8	533.8	525.1
27.5°	604.8	618.9	547.3	553.4	524.5	494.0	524.0	533.1	552.0	547.1	566.6
30°	692.4	681.8	607.0	605.3	572.5	547.0	567.8	560.1	594.3	593.2	607.6
32.5°	763.8	771.2	677.1	659.5	635.1	604.4	590.6	611.9	630.2	660.4	668.5
35°	839.4	837.8	748.8	713.3	673.1	660.4	677.4	686.2	725.3	753.0	733.7
37.5°	957.0	943.7	841.9	774.7	744.6	740.0	769.0	756.2	798.4	805.0	815.9
40°	1066.3	1026.2	927.0	850.0	802.1	819.2	820.2	821.8	844.5	862.4	916.1
42.5°	1170.2	1142.0	1013.5	955.6	885.0	868.4	878.8	882.3	939.5	976.1	1050.5
45°	1312.2	1236.7	1137.7	1078.3	999.4	978.1	970.8	1001.1	1056.3	1139.6	1203.4
47.5°	1432.3	1364.2	1269.8	1191.6	1103.3	1164.0	1122.4	1105.4	1179.7	1282.8	1384.4
50°	1532.0	1457.0	1364.4	1319.2	1305.2	1359.3	1251.3	1253.3	1321.2	1466.8	1583.2
52.5°	1609.1	1529.1	1447.0	1424.1	1502.7	1534.0	1455.9	1444.1	1493.7	1665.7	1805.6
55°	1681.2	1596.2	1532.9	1579.7	1712.2	1715.8	1710.3	1644.9	1704.6	1878.9	2035.8
57.5°	1699.7	1608.2	1566.1	1633.3	1812.5	1951.9	2006.7	1878.5	1939.2	2072.8	2232.9
60°	1604.4	1526.0	1509.2	1600.4	1866.7	2070.5	2213.6	2136.9	2114.1	2228.5	2370.9
62.5°	1409.1	1318.2	1331.8	1458.5	1809.6	2117.5	2377.1	2436.9	2298.9	2352.3	2431.2
65°	1121.5	1034.7	1062.3	1214.7	1630.4	2133.1	2460.6	2583.4	2365.6	2387.3	2345.8
67.5°	790.9	712.1	746.9	944.0	1356.3	1933.2	2475.0	2515.1	2294.6	2287.4	2112.6
70°	448.1	398.7	436.3	600.7	957.3	1540.1	2362.2	2309.4	2167.2	2065.3	1767.7
72.5°	205.5	188.5	206.6	305.8	551.1	1024.8	1928.5	1976.4	1867.4	1740.0	1344.8
75°	109.3	103.3	111.0	152.7	257.9	557.5	1370.2	1477.9	1419.9	1319.7	877.2
77.5°	81.3	76.7	80.3	99.0	137.7	218.1	778.5	914.4	936.5	844.2	487.1
80°	62.3	58.6	62.3	74.8	95.3	103.6	332.9	426.2	485.5	392.3	193.6
82.5°	46.2	43.8	49.4	56.2	67.0	64.7	118.1	147.1	189.6	129.6	75.5
85°	36.7	33.7	35.8	38.1	42.9	35.5	54.0	60.5	64.0	53.6	27.9
87.5°	14.4	13.3	26.0	20.5	17.4	10.7	16.2	18.4	18.8	18.1	8.1
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°	157.8	157.8	157.8	157.8	157.8	157.8	157.8	157.8	157.8	157.8	157.8
2.5°	191.6	190.1	181.1	184.0	188.7	189.6	191.6	186.1	183.3	193.4	193.9
5°	247.5	239.2	234.9	235.4	232.3	227.6	234.8	239.5	241.3	248.8	251.6
7.5°	290.8	280.8	273.6	265.4	253.7	246.2	258.8	268.0	272.9	288.5	294.6
10°	310.1	302.1	300.6	290.2	289.9	289.7	289.1	285.9	296.4	294.9	299.2
12.5°	349.9	348.2	333.6	329.5	330.0	329.5	316.6	316.0	316.2	330.3	325.2
15°	386.9	387.2	373.9	358.9	345.4	341.3	336.2	333.9	337.3	345.3	340.4
17.5°	432.7	434.2	396.1	372.4	354.6	354.1	342.1	327.8	348.3	353.2	347.9
20°	462.2	455.8	408.9	369.1	364.1	350.3	335.3	315.7	333.5	345.4	348.8
22.5°	490.2	479.0	420.9	374.8	350.6	334.2	319.7	307.0	312.7	326.0	323.8
25°	509.2	506.1	437.4	388.4	350.2	313.7	294.1	286.0	288.9	309.6	307.6
27.5°	554.5	521.4	434.5	391.9	335.5	285.7	275.9	267.2	264.3	286.7	292.8
30°	584.8	571.2	453.9	386.4	317.0	262.8	248.4	246.6	247.5	272.9	274.6
32.5°	636.2	600.8	485.8	365.3	290.0	245.8	229.3	230.0	234.2	252.7	256.5
35°	689.8	668.6	490.0	350.2	268.1	227.7	221.0	215.6	217.9	234.2	234.9
37.5°	789.2	716.2	516.4	326.7	252.1	220.8	208.0	203.2	204.5	213.6	220.2
40°	876.8	811.9	504.1	304.1	232.2	211.7	195.6	192.1	188.4	197.4	201.6
42.5°	1017.1	880.2	500.0	279.2	222.8	199.3	188.2	178.9	175.4	183.0	190.5
45°	1157.5	952.5	477.5	253.9	209.7	198.3	177.5	168.7	169.6	176.5	184.1
47.5°	1313.9	1049.7	439.4	229.4	195.3	193.9	166.8	163.0	165.7	173.4	181.1
50°	1498.8	1152.9	407.9	207.4	185.0	180.6	165.4	160.8	163.5	172.5	180.0
52.5°	1700.9	1266.0	384.9	187.0	173.4	170.0	167.3	162.8	165.9	173.7	181.5
55°	1901.9	1369.3	369.3	173.1	163.5	165.6	171.1	167.9	169.4	175.2	183.0
57.5°	2050.9	1423.8	337.9	158.2	155.3	163.0	171.6	166.2	167.1	175.2	183.7
60°	2137.6	1434.2	286.3	146.2	148.9	157.8	166.8	159.9	159.3	172.6	183.2
62.5°	2128.1	1373.7	227.1	135.1	141.6	150.0	159.6	153.0	154.7	172.9	184.1
65°	1992.2	1250.2	180.6	125.8	132.7	141.4	153.7	151.1	159.2	185.2	197.3
67.5°	1753.4	1069.8	145.1	117.1	124.4	135.6	157.8	164.7	168.2	197.7	210.1
70°	1421.0	831.2	120.9	109.4	117.8	138.4	169.7	168.3	165.4	191.8	201.6
72.5°	1026.6	569.8	106.4	101.9	109.7	130.1	170.0	162.7	159.0	175.1	182.1
75°	642.3	339.9	92.9	92.4	97.3	116.6	162.4	155.8	145.9	153.8	163.0
77.5°	366.8	174.0	78.2	82.3	85.2	101.2	145.4	139.4	130.5	133.9	142.9
80°	140.0	84.2	66.0	73.2	72.4	85.7	123.2	121.8	111.7	112.8	118.3
82.5°	66.0	47.1	54.8	62.9	58.8	68.3	100.1	99.6	90.8	82.2	86.6
85°	24.5	25.1	40.1	47.9	40.9	44.1	72.4	70.4	61.8	52.2	57.7
87.5°	5.5	9.0	19.7	24.9	14.2	13.6	29.2	25.4	24.5	14.5	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)