

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: P366637

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

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366637
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-11)
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-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2718 lumens
Efficiency: N/A
Efficacy: 79.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G1

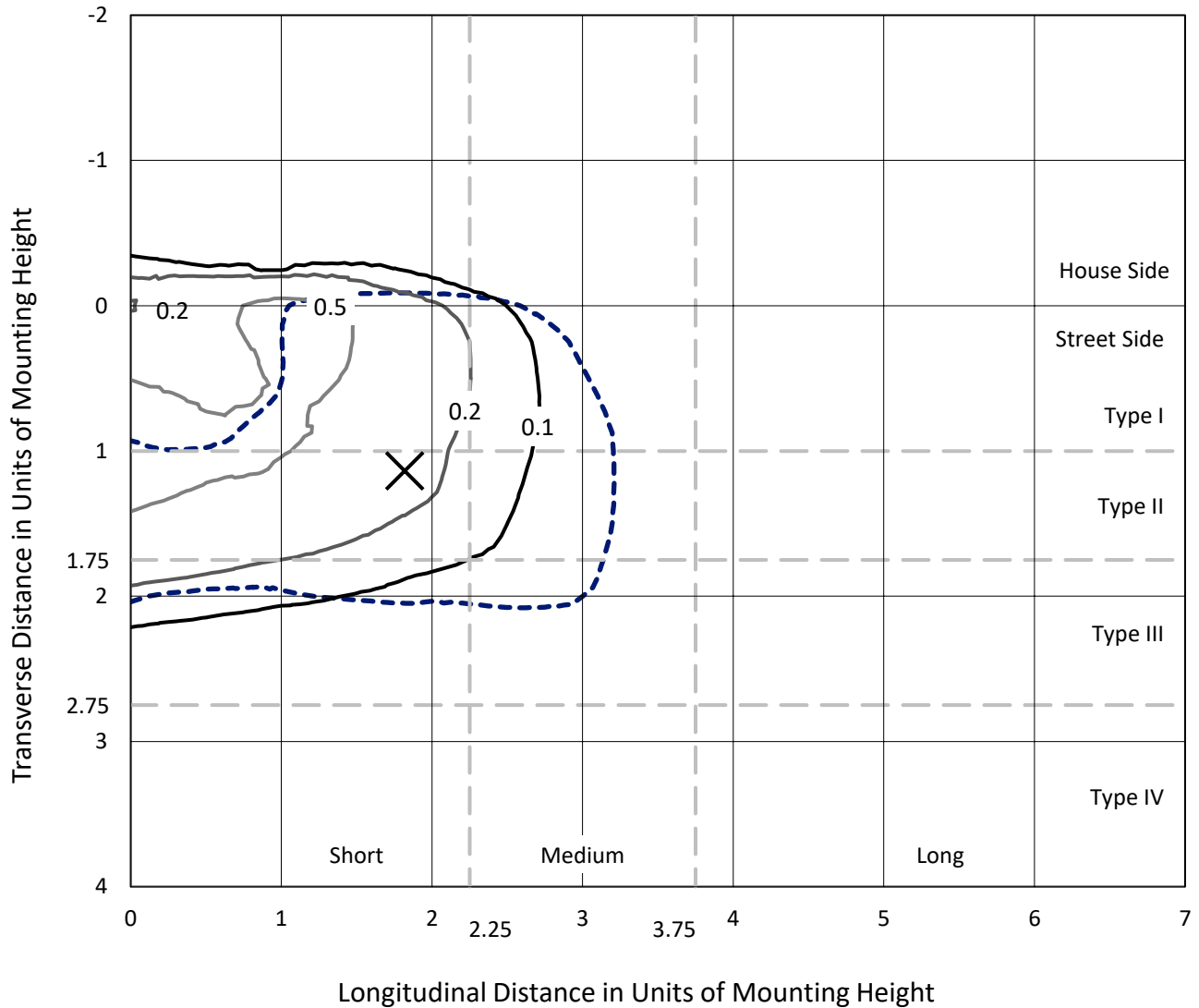
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

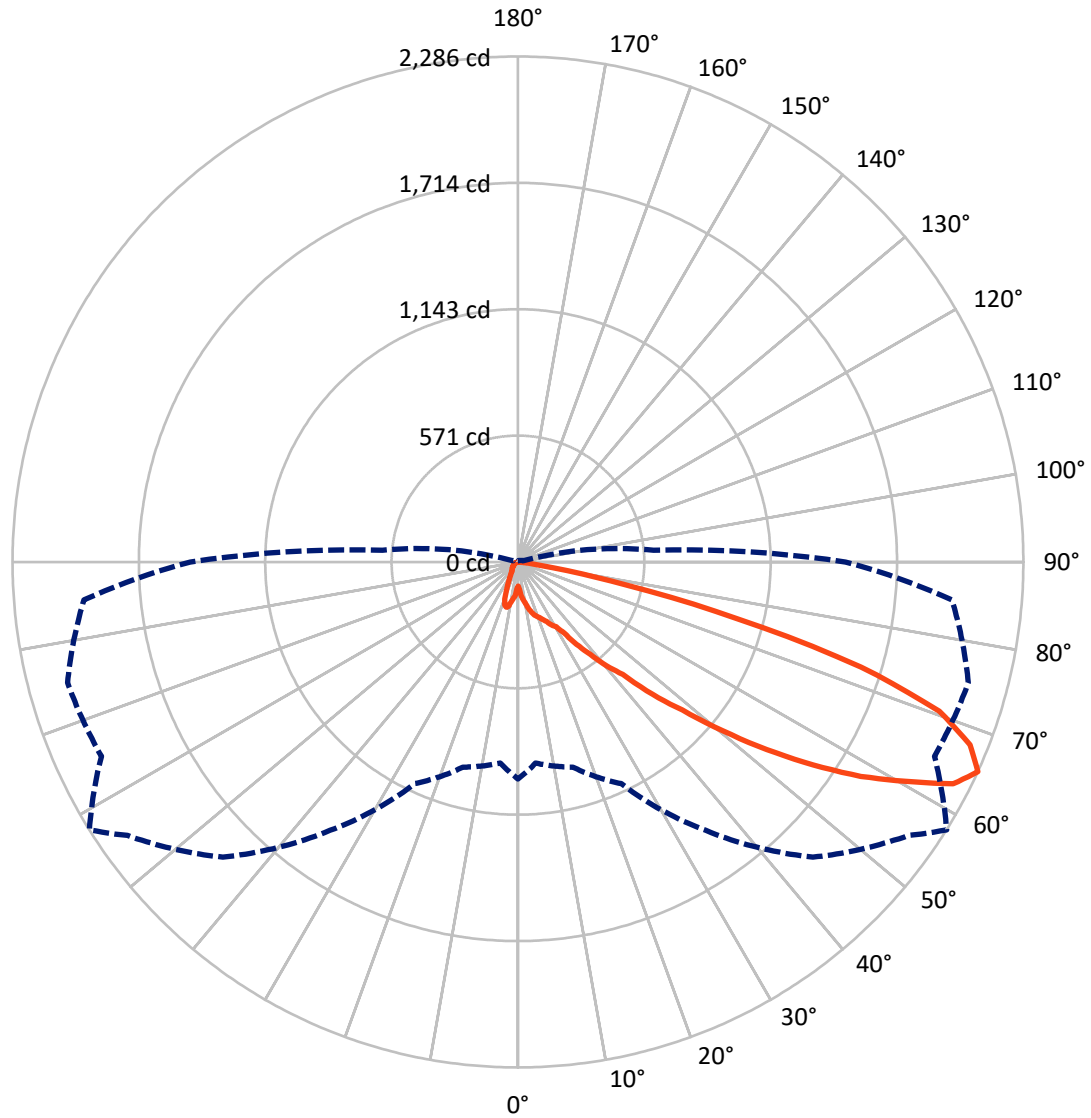
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 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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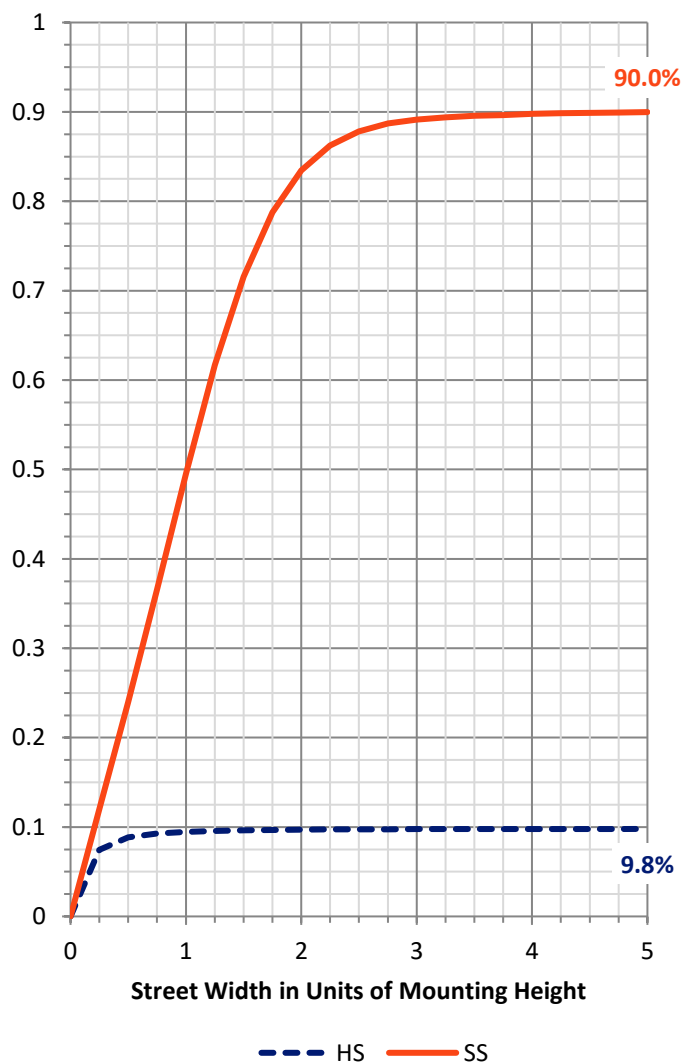
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	268.2	0.0	268.2
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	2449.8	0.0	2449.8
	% Fixture	90.1	0.0	90.1
Total	Lumens	2718.0	0.0	2718.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.3	0.6
10°-20°	55.8	2.1
20°-30°	108.0	4.0
30°-40°	215.5	7.9
40°-50°	440.5	16.2
50°-60°	781.3	28.7
60°-70°	823.7	30.3
70°-80°	267.1	9.8
80°-90°	10.9	0.4
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°	2718.0	100.0
0°-180°	2718.0	100.0

Coefficient of Utilization



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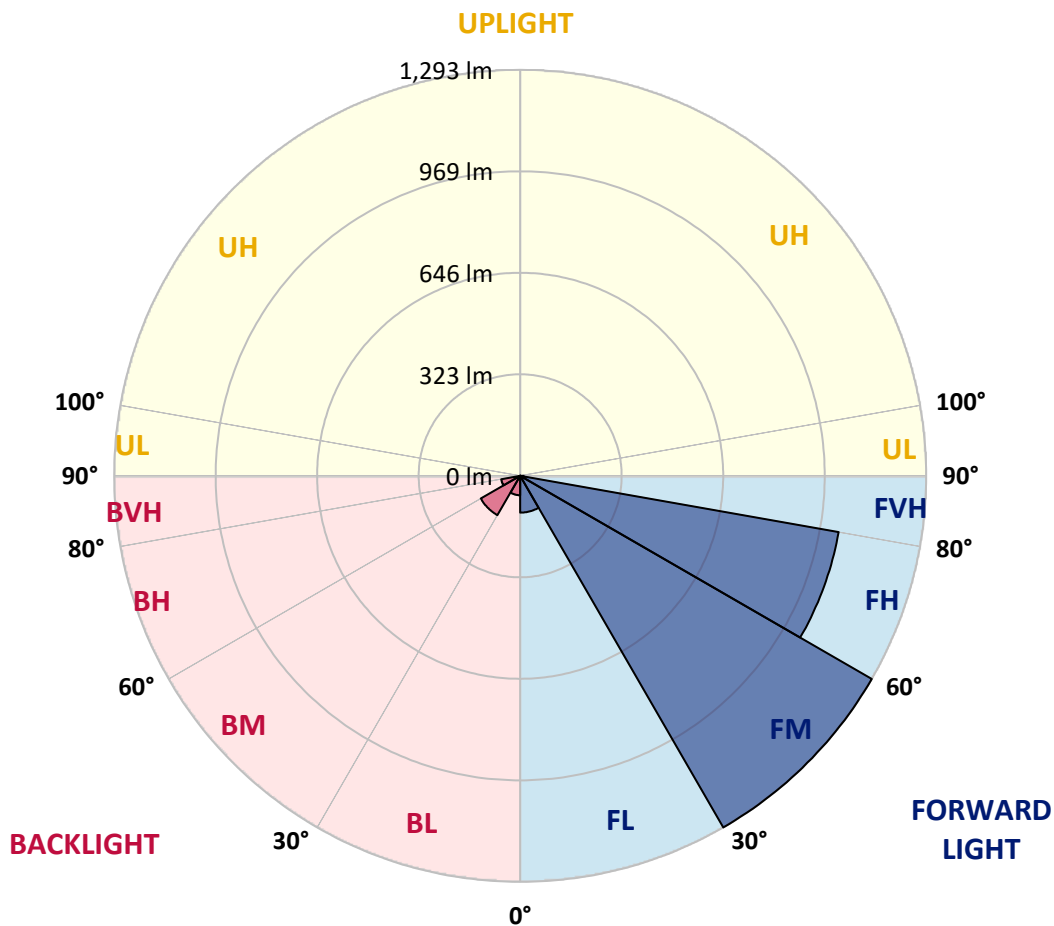
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	117.3	4.3			
FM (30°-60°)	1292.6	47.6			
FH (60°-80°)	1029.5	37.9			G1/1800
FVH (80°-90°)	10.5	0.4			G1/100
BL (0°-30°)	61.8	2.3	B0/110		
BM (30°-60°)	144.7	5.3	B0/220		
BH (60°-80°)	61.2	2.3	B0/110		G0/110
BVH (80°-90°)	0.5	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	108.8	108.8	108.8	108.8	108.8	108.8	108.8	108.8	108.8	108.8	108.8
2.5°	132.8	128.9	122.6	123.6	124.9	127.3	125.3	123.5	121.5	118.9	128.9
5°	160.4	153.8	153.2	151.8	150.7	150.6	153.0	152.3	153.3	158.2	163.3
7.5°	170.5	167.7	162.5	164.7	161.3	158.7	169.6	173.1	179.8	182.1	195.3
10°	169.4	165.4	167.6	168.6	170.9	180.4	187.3	191.1	197.0	209.5	206.9
12.5°	174.3	177.8	180.1	180.3	192.1	209.5	214.4	217.6	228.0	232.9	245.8
15°	190.7	196.5	192.8	194.4	198.2	219.4	230.9	238.0	252.7	268.6	271.8
17.5°	214.1	217.8	210.1	204.6	215.2	226.8	247.6	255.0	264.3	301.5	308.4
20°	243.6	249.9	233.4	211.5	225.4	239.2	261.8	265.4	275.3	323.8	334.7
22.5°	312.6	303.3	278.1	243.9	239.8	245.9	267.5	281.3	298.1	336.4	361.6
25°	380.7	377.5	340.3	302.2	274.7	260.9	289.5	297.2	324.7	366.2	380.1
27.5°	456.5	462.9	400.8	377.7	323.7	278.7	303.3	322.4	355.0	377.1	410.6
30°	556.4	546.2	473.3	450.2	388.5	327.5	339.0	340.2	388.1	412.9	444.7
32.5°	634.8	641.4	549.8	514.3	465.1	402.6	365.7	381.7	415.9	471.2	501.3
35°	719.6	718.9	629.7	582.0	517.6	464.0	445.2	456.8	499.8	562.4	570.4
37.5°	846.3	835.4	730.1	660.2	605.4	559.6	545.3	529.8	574.2	633.9	663.7
40°	965.8	928.3	831.0	748.0	677.9	659.3	607.2	616.7	629.9	708.7	791.2
42.5°	1086.5	1063.3	933.2	863.7	777.6	733.2	699.2	694.8	757.4	850.7	935.9
45°	1245.8	1174.7	1070.6	1009.6	909.8	865.2	837.9	854.2	910.5	1046.9	1103.7
47.5°	1379.6	1314.1	1224.7	1132.0	1027.3	1077.3	1025.9	1000.1	1077.3	1218.3	1293.7
50°	1494.5	1421.5	1331.1	1262.4	1245.4	1293.4	1189.4	1198.9	1249.0	1414.6	1457.2
52.5°	1578.1	1501.2	1422.3	1389.1	1458.7	1482.9	1430.7	1409.7	1455.3	1582.0	1602.7
55°	1641.0	1562.3	1500.6	1546.4	1681.1	1673.1	1691.5	1619.8	1663.5	1756.7	1746.9
57.5°	1644.8	1551.6	1515.5	1589.1	1773.9	1897.1	1950.9	1829.0	1853.8	1893.2	1871.1
60°	1524.5	1431.8	1428.9	1533.4	1800.9	1955.1	2072.7	2013.3	1980.1	2009.3	1967.5
62.5°	1284.9	1220.0	1250.3	1365.8	1700.6	1923.2	2137.6	2209.0	2079.7	2086.3	2026.9
65°	981.1	913.0	960.4	1106.0	1481.5	1887.3	2155.9	2285.5	2077.9	2108.2	1970.0
67.5°	649.8	610.3	664.0	824.4	1177.9	1666.1	2146.4	2205.2	2011.9	2022.6	1758.6
70°	335.4	325.8	369.3	495.8	791.9	1280.0	2053.2	2021.1	1878.0	1742.4	1356.5
72.5°	107.4	107.9	149.7	226.5	427.0	779.2	1578.2	1622.3	1502.8	1274.6	828.2
75°	47.6	46.8	62.6	95.0	178.0	349.4	980.5	1028.1	935.6	701.2	348.1
77.5°	34.3	33.2	40.1	55.6	88.1	118.4	459.7	496.1	424.2	243.0	79.7
80°	24.2	24.0	29.1	39.0	55.1	52.6	145.2	162.8	130.4	58.9	23.4
82.5°	13.6	14.1	20.2	27.5	33.5	26.3	40.9	45.0	43.9	31.4	10.3
85°	6.6	7.3	13.2	19.9	17.6	10.3	14.5	15.8	18.4	18.2	5.2
87.5°	0.0	0.0	5.4	9.0	4.7	1.5	4.4	5.1	4.9	5.8	1.2
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°	108.8	108.8	108.8	108.8	108.8	108.8	108.8	108.8	108.8	108.8	108.8
2.5°	130.8	129.9	118.3	119.2	121.8	120.7	121.7	119.5	117.1	127.0	126.9
5°	165.4	158.5	154.9	151.5	152.1	145.2	149.2	151.0	150.7	156.4	157.9
7.5°	195.7	186.5	179.2	172.2	161.4	151.8	157.8	161.6	164.2	174.0	177.8
10°	210.0	202.5	199.6	185.8	178.1	172.2	165.0	159.8	161.9	159.3	161.9
12.5°	241.2	236.1	225.0	211.0	201.8	189.6	162.8	140.5	126.7	126.9	125.9
15°	269.6	269.3	252.7	229.5	202.9	168.0	126.3	98.1	85.1	81.4	80.2
17.5°	306.8	302.2	271.8	237.7	189.8	130.1	86.0	67.2	66.0	68.1	67.2
20°	330.5	323.8	281.3	225.9	156.4	88.0	64.9	59.5	63.2	66.3	65.5
22.5°	354.3	344.2	288.5	211.5	111.3	64.4	58.6	57.7	60.0	63.8	64.4
25°	367.3	365.3	302.5	184.6	76.2	56.5	56.5	56.2	56.9	59.7	59.2
27.5°	405.1	378.1	292.0	144.0	58.9	51.9	52.6	52.3	49.6	52.3	52.5
30°	428.6	416.2	292.8	102.5	51.9	45.9	47.9	45.5	41.3	43.6	43.2
32.5°	476.1	445.2	290.5	69.2	47.3	43.8	40.7	37.2	34.1	35.0	34.3
35°	531.3	507.8	259.4	55.6	44.1	38.7	33.8	30.3	27.1	27.9	27.7
37.5°	641.2	566.4	233.7	50.0	41.9	35.5	29.8	24.9	23.3	23.7	24.2
40°	743.0	664.2	185.8	47.6	38.3	31.7	24.6	21.1	20.0	20.4	20.8
42.5°	895.1	741.9	140.3	45.1	34.6	26.8	20.5	18.2	17.1	17.8	18.1
45°	1042.3	808.0	104.8	43.0	31.5	23.1	17.3	15.8	14.5	15.0	15.6
47.5°	1189.4	881.5	78.2	39.6	28.2	19.9	14.8	13.8	13.0	13.2	13.9
50°	1321.0	915.7	61.5	35.5	25.4	17.3	13.5	12.4	12.1	12.2	12.9
52.5°	1417.7	916.0	51.9	31.8	22.8	15.3	12.7	11.5	11.3	11.6	12.2
55°	1505.1	891.6	45.0	28.6	20.5	13.9	12.1	11.0	11.0	11.3	11.9
57.5°	1563.1	846.6	39.0	25.3	18.5	13.2	11.6	10.6	10.4	10.3	10.7
60°	1591.4	785.2	33.1	22.2	16.7	12.7	11.3	9.3	9.2	8.9	9.2
62.5°	1573.5	708.4	27.7	19.1	14.8	12.1	9.9	8.1	7.8	7.2	7.7
65°	1482.0	615.0	23.4	16.4	12.9	10.3	8.4	6.9	6.1	5.4	5.2
67.5°	1294.8	499.6	19.6	14.1	11.0	8.4	6.9	6.1	4.7	4.1	4.0
70°	970.4	341.1	16.2	12.1	9.2	7.2	5.8	5.5	4.4	4.0	3.7
72.5°	569.3	184.1	13.6	10.6	7.8	6.0	4.7	5.1	4.4	3.7	3.4
75°	227.4	61.2	10.9	8.4	6.3	4.3	4.0	4.1	4.0	3.4	2.8
77.5°	51.9	19.3	8.4	6.6	4.9	2.8	3.2	3.5	3.5	2.8	2.0
80°	16.2	7.7	4.9	4.1	3.5	1.5	2.3	2.4	1.7	0.8	0.0
82.5°	5.2	2.1	1.7	1.7	1.5	0.3	0.5	0.3	0.0	0.0	0.0
85°	2.0	1.4	1.1	1.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.8	0.6	0.5	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0
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)