

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: P366641

Luminaire Tested: **MSA-SA1A-730-U-T4W-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366641
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-15)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1A-730-U-T4W-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2775 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G1

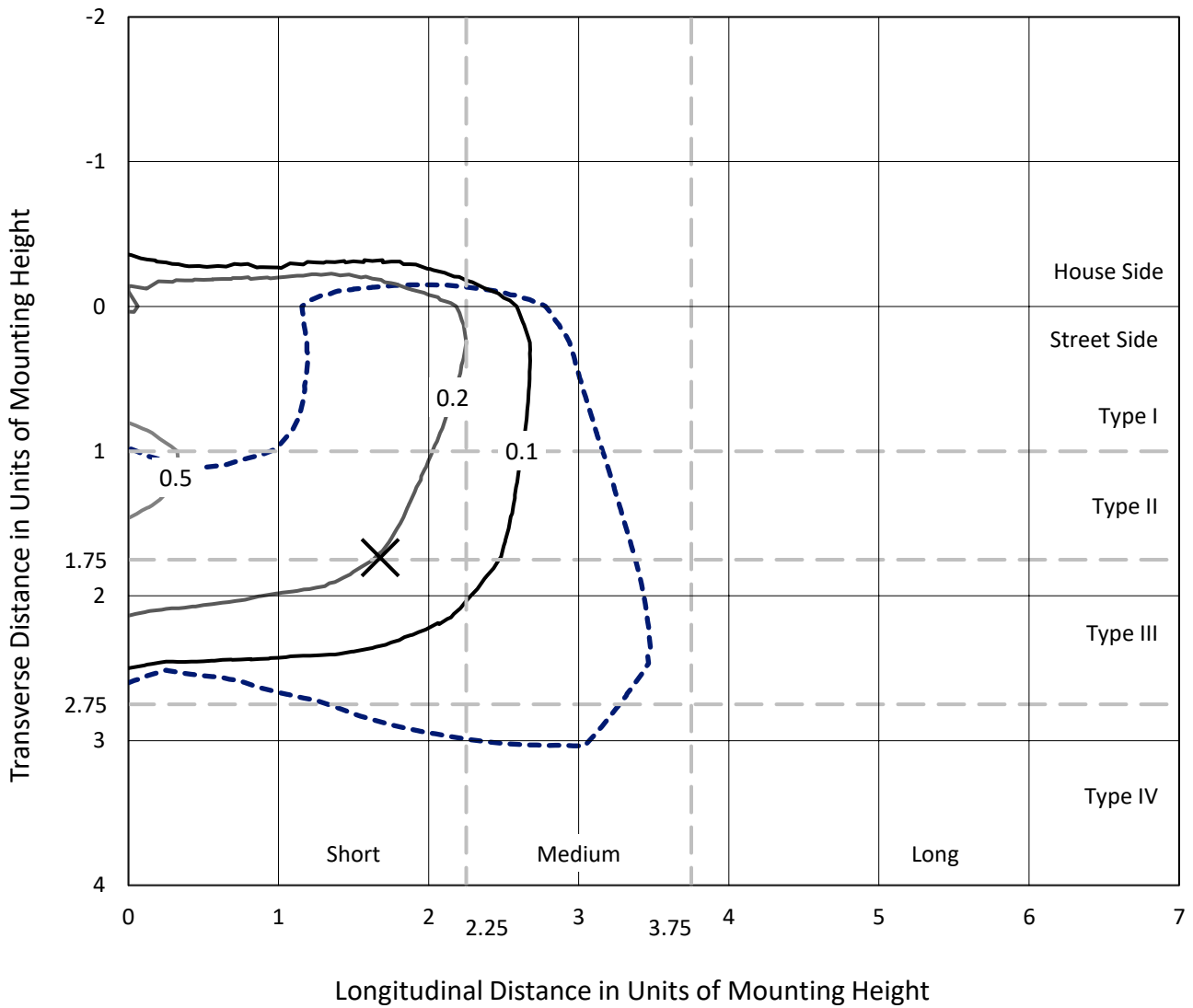
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

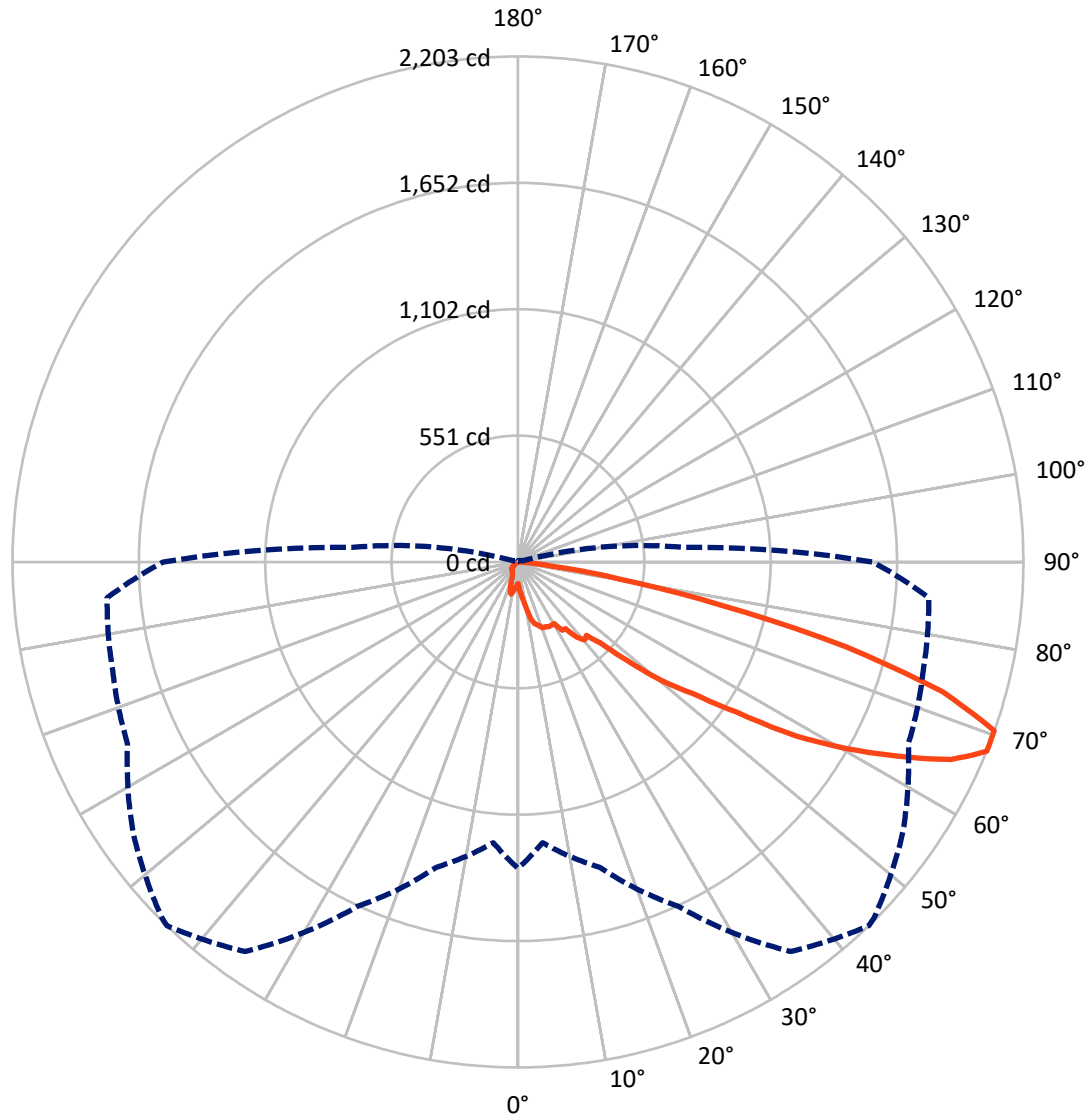
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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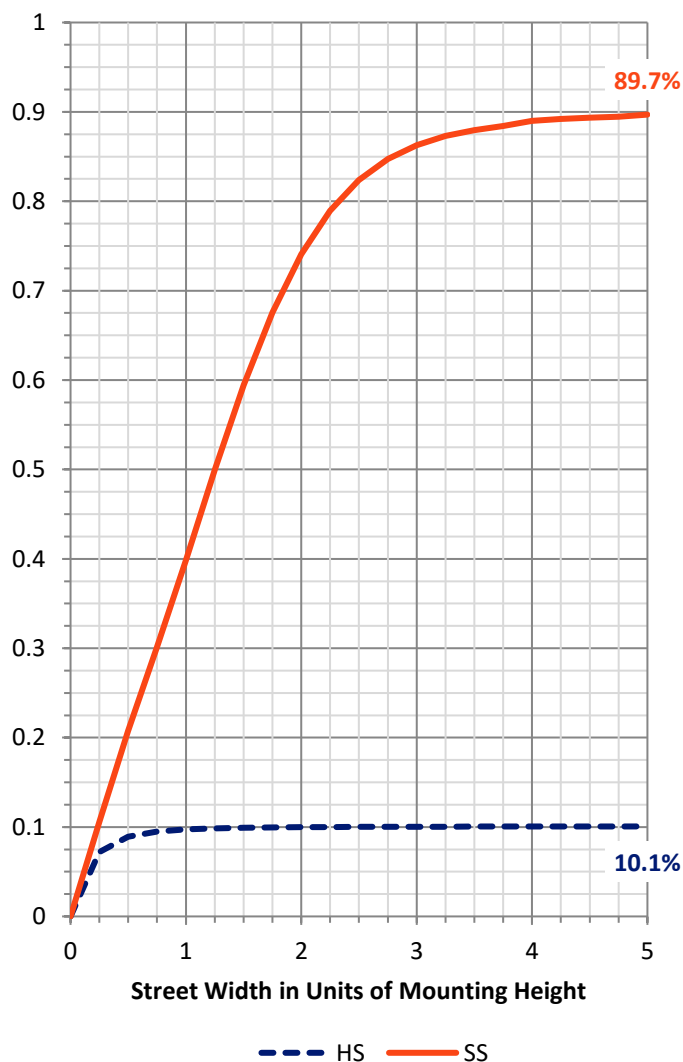
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	281.9	0.0	281.9
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	2493.1	0.0	2493.1
	% Fixture	89.8	0.0	89.8
Total	Lumens	2775.0	0.0	2775.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.9	0.5
10°-20°	58.0	2.1
20°-30°	102.8	3.7
30°-40°	167.1	6.0
40°-50°	334.3	12.0
50°-60°	685.8	24.7
60°-70°	942.1	33.9
70°-80°	442.8	16.0
80°-90°	28.4	1.0
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°	2775.0	100.0
0°-180°	2775.0	100.0

Coefficient of Utilization

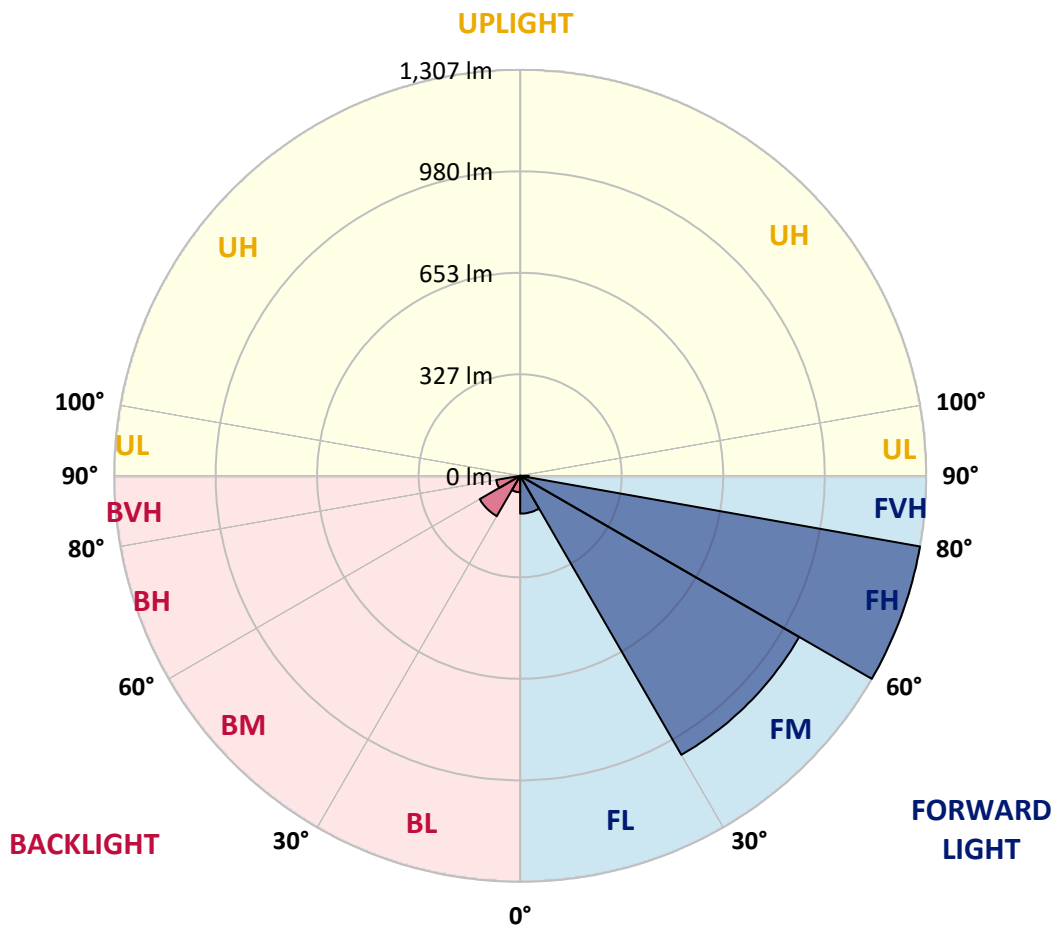


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	121.7	4.4			
FM (30°-60°)	1037.0	37.4			
FH (60°-80°)	1306.6	47.1			G1/1800
FVH (80°-90°)	27.8	1.0			G1/100
BL (0°-30°)	52.9	1.9	B0/110		
BM (30°-60°)	150.2	5.4	B0/220		
BH (60°-80°)	78.2	2.8	B0/110		G0/110
BVH (80°-90°)	0.6	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5
2.5°	118.9	115.1	109.6	110.8	111.4	113.1	113.2	111.1	105.0	103.3	110.8
5°	166.6	157.3	155.6	152.1	145.1	141.2	140.3	144.1	139.2	137.7	139.7
7.5°	212.9	204.9	196.2	191.4	176.7	167.7	167.3	168.8	169.7	164.3	167.1
10°	243.6	234.9	233.0	221.9	209.2	207.0	206.1	200.3	195.6	191.6	178.3
12.5°	271.5	271.3	274.7	258.6	256.6	258.8	258.0	237.2	232.4	215.8	211.9
15°	308.5	317.7	303.1	289.7	272.5	279.9	277.9	264.6	261.4	250.0	233.7
17.5°	346.9	349.3	325.0	304.4	299.9	290.3	292.3	287.5	271.3	280.3	264.1
20°	347.8	353.2	327.2	293.0	306.7	306.2	306.3	301.8	280.3	301.4	286.6
22.5°	360.7	347.5	323.3	301.6	304.1	306.3	308.8	303.1	298.5	303.7	306.5
25°	355.5	350.3	327.0	312.6	310.3	312.2	312.8	320.0	317.1	329.6	322.7
27.5°	368.9	361.4	319.8	322.4	314.3	312.2	308.5	332.5	341.1	331.1	349.5
30°	392.0	391.0	332.2	336.0	329.8	310.9	320.7	352.1	362.8	356.7	379.0
32.5°	428.1	431.8	368.5	343.7	346.9	355.3	351.6	352.1	379.2	392.8	410.6
35°	479.4	477.4	403.8	372.8	355.9	357.3	362.5	387.4	422.5	421.6	440.4
37.5°	580.1	558.4	466.4	402.4	407.5	414.4	410.6	444.1	447.4	448.7	493.6
40°	728.5	699.6	565.1	465.0	416.4	446.8	445.0	453.2	475.7	484.2	549.8
42.5°	924.1	885.2	738.8	580.1	459.2	438.2	449.6	465.2	540.8	564.8	636.7
45°	1140.2	1061.5	912.0	744.1	566.6	501.6	510.2	539.2	644.1	683.8	763.3
47.5°	1280.2	1211.0	1083.5	889.5	678.6	644.5	645.3	651.6	765.4	839.2	945.7
50°	1401.8	1328.2	1209.9	1041.5	876.8	812.2	797.5	768.6	920.0	1020.8	1138.9
52.5°	1573.5	1487.5	1336.3	1219.7	1102.8	950.7	945.5	955.3	1102.2	1208.2	1337.1
55°	1728.4	1623.8	1479.6	1406.1	1360.5	1154.2	1158.7	1175.0	1336.2	1392.3	1513.4
57.5°	1796.8	1683.5	1609.3	1576.3	1551.9	1432.3	1417.3	1407.5	1520.7	1542.1	1698.1
60°	1841.6	1733.9	1700.2	1707.9	1781.6	1654.6	1641.0	1584.1	1673.4	1691.0	1863.6
62.5°	1813.3	1715.0	1722.2	1786.0	1949.8	1866.2	1826.9	1731.7	1798.3	1812.5	1982.5
65°	1635.0	1532.6	1625.1	1779.5	2078.0	2076.0	2057.8	1868.1	1867.5	1885.7	1991.7
67.5°	1335.6	1228.1	1377.6	1656.1	2072.7	2203.2	2194.6	2048.9	1877.4	1828.7	1797.4
70°	928.5	835.3	1004.9	1367.7	1888.0	2202.3	2188.5	2170.4	1798.7	1574.1	1393.6
72.5°	482.5	431.2	589.1	942.5	1505.0	1934.9	1980.4	1950.7	1535.9	1143.7	820.6
75°	163.9	147.1	243.0	500.2	1000.4	1477.6	1530.8	1500.7	1043.1	613.6	324.6
77.5°	63.5	59.1	87.1	203.1	501.9	900.4	958.2	927.5	559.4	224.8	76.4
80°	36.1	34.9	48.0	91.5	221.3	447.9	488.6	443.1	201.7	75.7	19.9
82.5°	15.3	15.8	26.8	49.4	111.2	158.1	176.3	160.8	84.5	51.9	7.3
85°	3.4	4.1	12.7	27.5	46.7	45.1	47.3	52.5	51.9	38.1	3.2
87.5°	0.0	0.0	4.0	7.5	11.2	7.3	5.8	10.3	15.9	15.3	1.4
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°	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5
2.5°	112.2	110.6	101.0	100.4	101.0	99.3	99.2	95.6	95.9	103.9	104.5
5°	139.7	132.1	123.8	121.2	118.7	113.2	116.3	116.3	116.3	121.3	122.9
7.5°	164.6	154.4	142.8	133.0	123.5	116.6	121.3	124.7	126.7	133.3	136.3
10°	176.0	165.9	155.5	141.5	134.2	131.6	126.1	123.2	126.7	125.3	127.0
12.5°	200.2	191.0	173.1	158.7	153.2	144.3	128.1	116.8	109.3	108.0	107.7
15°	223.7	218.1	194.0	174.7	155.6	135.1	107.4	92.4	84.5	83.1	83.2
17.5°	253.6	245.4	210.1	182.4	150.0	113.1	82.9	70.1	69.5	72.8	73.1
20°	273.4	260.1	218.2	176.1	131.3	85.5	64.9	61.8	66.7	72.8	72.2
22.5°	292.4	278.0	228.9	170.6	101.8	64.9	59.7	60.0	64.1	70.7	72.4
25°	305.0	299.8	242.1	157.8	77.6	56.2	57.1	59.4	62.9	69.2	69.2
27.5°	342.8	318.4	240.5	132.8	59.7	52.3	54.5	57.4	59.2	66.7	67.5
30°	365.7	357.8	248.5	107.4	52.3	47.4	51.6	54.2	55.4	64.0	64.3
32.5°	393.9	376.3	258.1	79.3	48.7	47.1	46.2	48.2	51.7	59.2	59.7
35°	428.1	422.9	244.4	62.3	47.4	44.1	42.2	43.3	45.6	50.6	51.7
37.5°	498.1	467.2	236.1	53.4	47.4	43.0	41.0	38.3	38.6	42.1	44.1
40°	557.0	547.5	213.0	51.9	45.3	41.5	36.6	33.2	30.9	32.0	32.7
42.5°	665.2	621.3	183.2	51.1	43.3	37.5	31.1	27.5	24.0	24.3	25.6
45°	796.5	701.7	156.5	50.3	41.9	33.5	26.2	22.0	18.4	18.5	19.7
47.5°	971.8	819.1	124.3	48.0	39.5	29.8	21.1	16.8	14.7	15.1	16.2
50°	1171.1	922.1	98.2	44.5	36.6	26.3	17.1	13.6	12.9	13.3	14.5
52.5°	1349.0	998.0	81.1	41.3	32.4	21.4	14.4	12.1	11.8	12.1	13.0
55°	1507.2	1042.1	67.8	37.6	27.8	17.3	13.0	11.2	11.0	10.9	11.5
57.5°	1655.7	1054.8	52.9	31.8	22.6	15.0	12.1	10.4	10.1	9.6	10.1
60°	1763.9	1033.0	38.9	25.6	18.5	13.6	11.3	9.3	8.9	8.1	8.4
62.5°	1816.0	973.5	29.4	20.5	15.8	12.4	10.1	8.1	7.5	6.6	6.7
65°	1766.5	875.4	23.1	17.3	13.5	10.4	8.6	6.9	6.1	5.2	5.2
67.5°	1546.9	726.2	19.6	15.0	11.3	8.9	7.0	6.3	5.0	4.3	4.1
70°	1135.4	522.4	16.8	13.2	9.8	7.7	6.0	5.7	4.9	4.1	3.8
72.5°	640.8	295.6	14.4	11.6	8.3	6.4	5.0	5.2	4.7	3.8	3.5
75°	244.5	99.6	11.9	9.6	6.7	4.9	4.3	4.3	4.3	3.2	2.8
77.5°	60.6	25.4	9.5	7.8	5.4	3.2	3.5	3.7	3.7	2.8	2.0
80°	16.7	8.6	5.7	5.7	3.8	1.8	2.4	2.4	2.0	0.9	0.0
82.5°	6.1	3.2	2.0	2.4	1.7	0.6	0.9	0.6	0.5	0.0	0.0
85°	2.6	1.7	1.2	1.4	0.8	0.0	0.2	0.3	0.0	0.0	0.0
87.5°	1.1	0.8	0.6	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)