

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: P596091

Luminaire Tested: **MSA-SA3A-AMB-U-T1**

Issue Date: 4/29/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P596091  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-8)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 4/29/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA3A-AMB-U-T1  
Description: POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH  
AND TYPE I OPTICS.  
Light Source: (48) 1549K CCT, -21.5 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2327 lumens  
Efficiency: N/A  
Efficacy: 38.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type I - Medium  
BUG Rating: B1 - U0 - G1

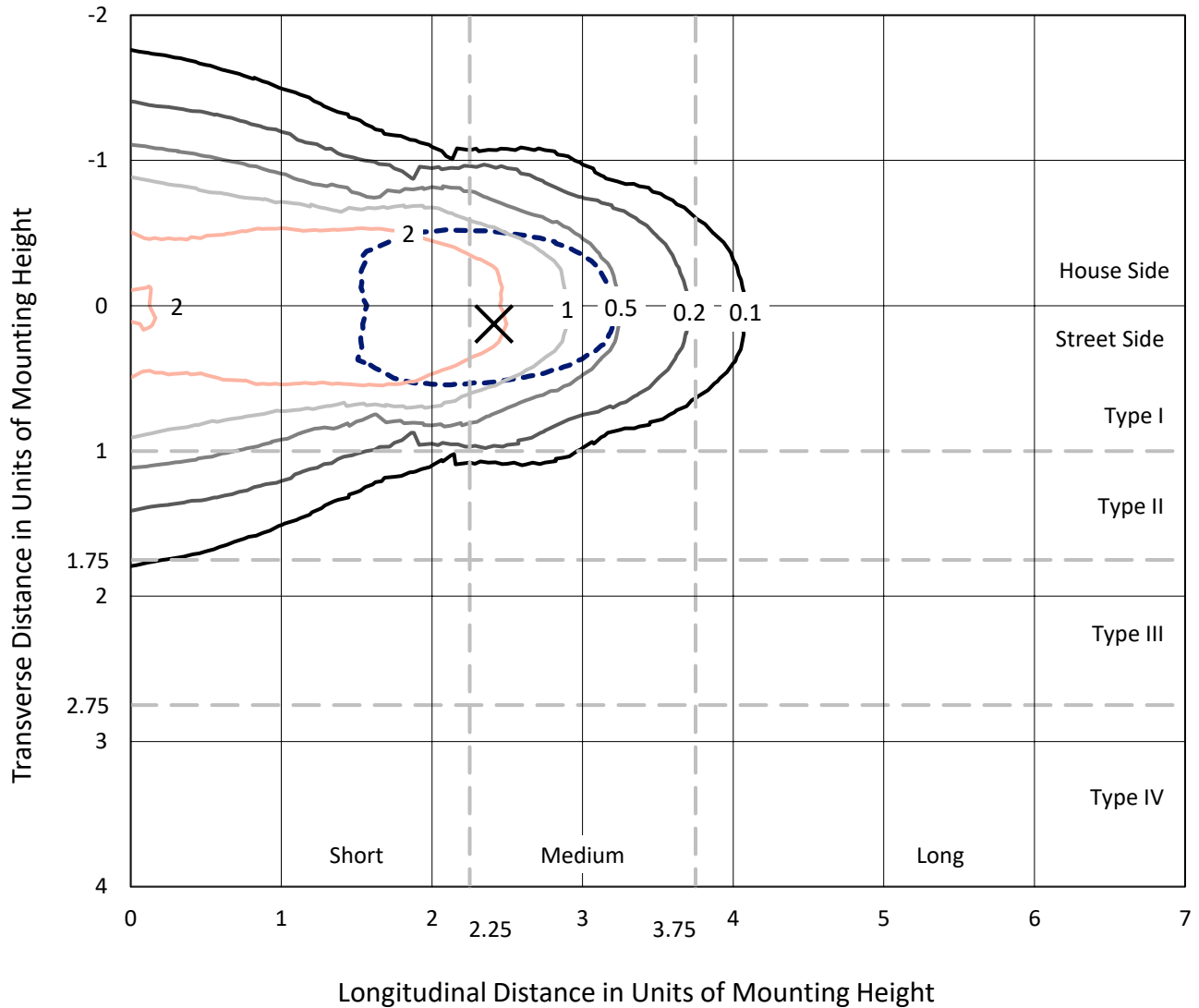
Input Watts (W): 59.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

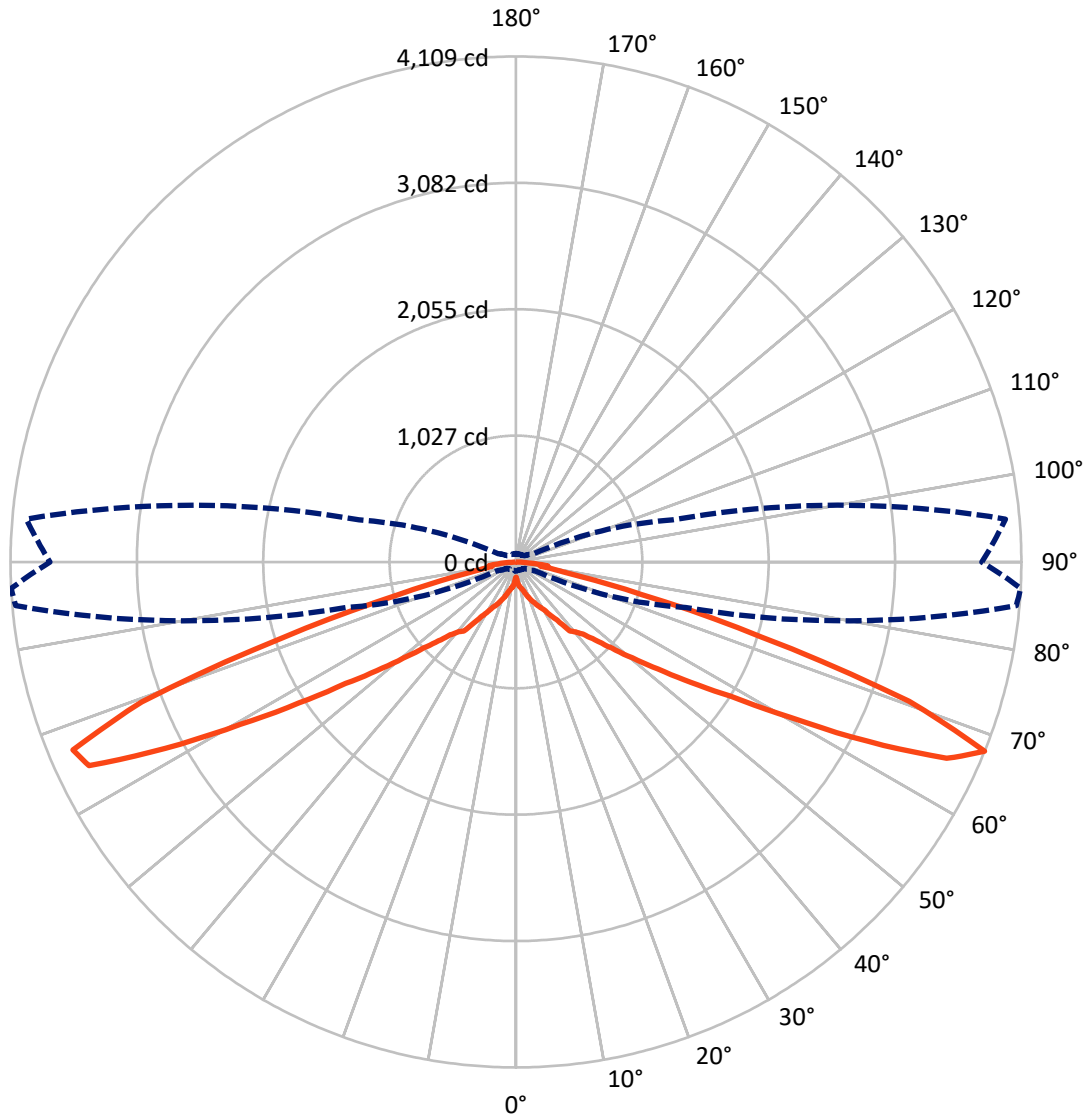
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.7 fc  
 Type I - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 87-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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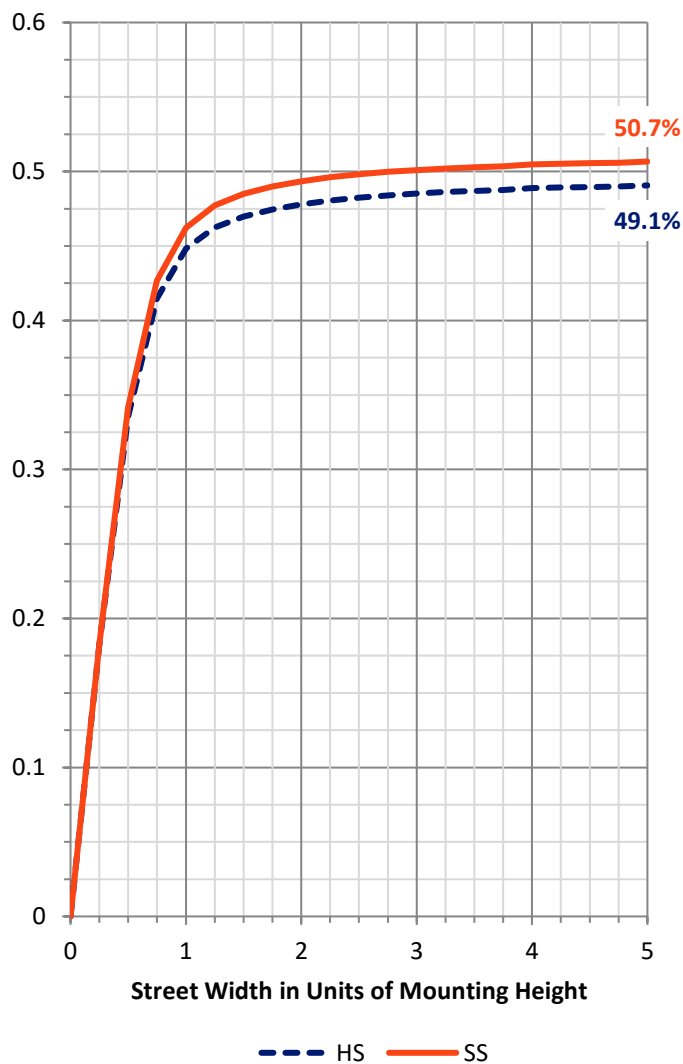
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1151.6	0.0	1151.6
	% Fixture	49.5	0.0	49.5
<b>Street Side</b>	Lumens	1175.4	0.0	1175.4
	% Fixture	50.5	0.0	50.5
<b>Total</b>	Lumens	2327.0	0.0	2327.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	16.3	0.7
10°-20°	77.7	3.3
20°-30°	156.8	6.7
30°-40°	257.2	11.1
40°-50°	379.4	16.3
50°-60°	515.1	22.1
60°-70°	660.6	28.4
70°-80°	233.9	10.1
80°-90°	30.0	1.3
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°	2327.0	100.0
0°-180°	2327.0	100.0

**Coefficient of Utilization**



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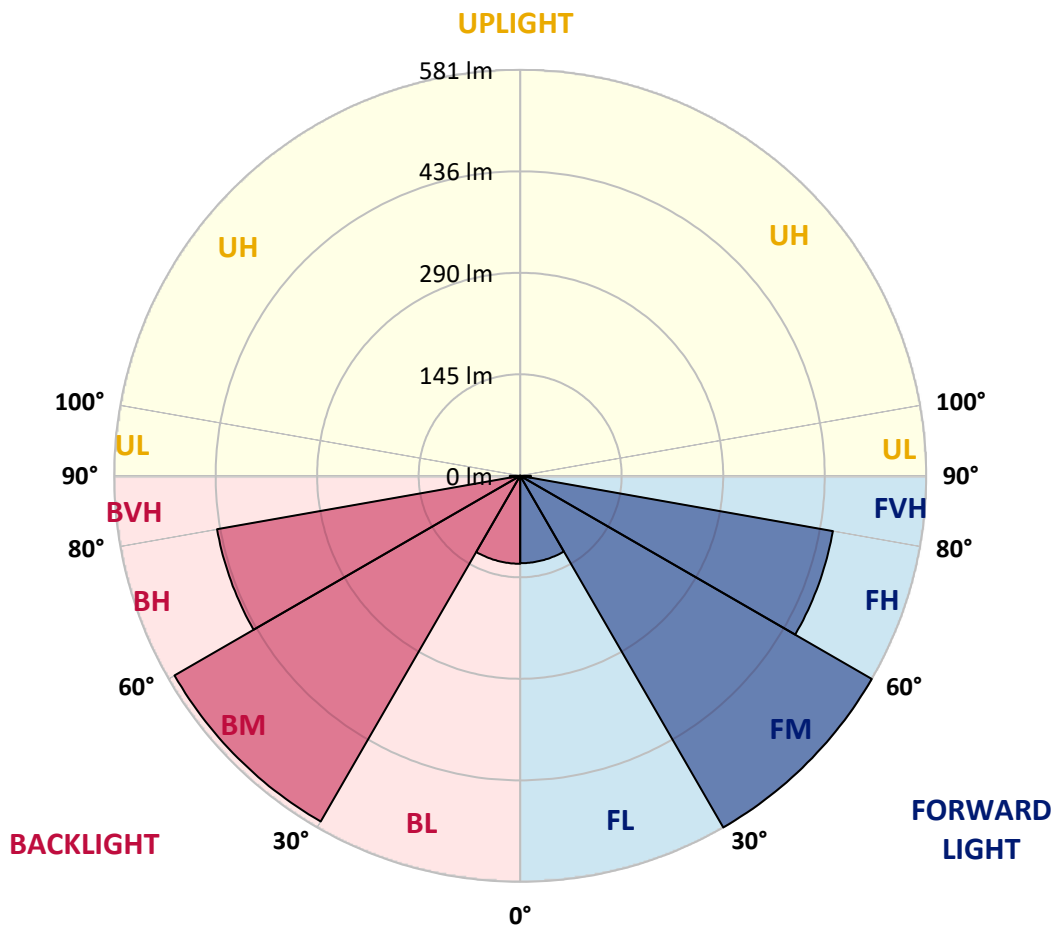
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	125.0	5.4			
FM (30°-60°)	580.7	25.0			
FH (60°-80°)	454.2	19.5			G0/660
FVH (80°-90°)	15.3	0.7			G1/100
BL (0°-30°)	125.8	5.4	B1/500		
BM (30°-60°)	570.9	24.5	B1/1000		
BH (60°-80°)	440.2	18.9	B1/500		G1/500
BVH (80°-90°)	14.7	0.6			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 I Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	87°
0°	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7
2.5°	152.5	139.7	130.1	122.1	122.1	127.7	129.3	122.1	127.7	135.7	141.3
5°	190.0	171.6	161.2	147.7	130.9	129.3	130.1	146.9	165.2	172.4	179.6
7.5°	219.5	202.0	198.8	175.6	150.1	152.5	157.2	176.4	191.6	198.0	198.8
10°	226.7	221.9	212.3	192.4	191.6	198.0	182.8	191.6	204.3	209.1	211.5
12.5°	234.7	233.1	243.5	239.5	249.8	249.8	242.7	232.3	233.1	225.9	227.5
15°	247.4	249.8	257.8	265.8	278.6	300.9	285.0	269.0	261.8	250.6	249.8
17.5°	263.4	266.6	269.8	285.8	308.9	327.3	326.5	309.7	301.7	294.5	289.0
20°	274.6	279.4	277.8	282.6	320.1	348.8	360.0	333.7	324.9	317.7	313.7
22.5°	287.4	281.8	272.2	282.6	312.1	342.4	376.8	357.6	344.0	348.0	347.2
25°	278.6	280.2	276.2	288.2	317.7	351.2	390.3	400.7	384.7	377.6	380.8
27.5°	277.0	275.4	258.6	285.8	306.5	336.1	404.7	443.0	403.9	409.5	415.9
30°	266.6	272.2	252.2	280.2	304.1	336.1	420.7	477.3	443.0	457.4	449.4
32.5°	266.6	265.0	253.0	266.6	292.1	354.4	433.4	507.7	522.0	521.2	518.0
35°	266.6	267.4	249.8	262.6	288.2	343.2	451.0	570.7	602.7	606.6	581.1
37.5°	274.6	265.0	254.6	264.2	289.0	364.8	476.5	629.8	700.8	723.2	711.2
40°	263.4	257.8	244.3	262.6	279.4	350.4	469.4	699.2	786.2	755.9	747.1
42.5°	245.1	233.9	231.5	252.2	274.6	331.3	471.7	752.7	897.2	807.0	802.2
45°	217.1	200.4	209.1	233.9	264.2	333.7	464.6	811.8	1018.5	897.2	902.0
47.5°	177.2	170.8	172.4	197.2	234.7	318.5	434.2	827.0	1225.3	1030.5	1044.9
50°	142.1	136.5	140.5	160.4	201.2	275.4	421.5	834.9	1395.3	1201.3	1226.1
52.5°	114.1	110.2	114.1	129.3	169.2	226.7	368.8	790.2	1585.3	1420.8	1447.2
55°	99.8	95.8	96.6	106.2	132.5	182.8	298.5	715.2	1822.3	1701.8	1726.6
57.5°	91.8	88.6	87.8	92.6	107.8	144.5	221.9	597.1	2063.4	2088.9	2058.6
60°	87.0	83.8	83.0	84.6	92.6	112.5	173.2	424.7	2207.9	2663.7	2562.3
62.5°	84.6	81.4	79.8	79.8	85.4	96.6	130.9	289.8	2226.2	3392.4	3212.8
65°	79.8	75.8	75.0	75.8	80.6	86.2	107.8	213.1	1994.0	4047.8	3848.2
67.5°	74.2	71.0	69.4	71.0	75.8	78.2	91.0	166.8	1429.6	4082.9	4109.2
70°	67.8	64.7	64.7	66.3	71.0	71.8	79.0	127.7	832.5	3207.3	3391.6
72.5°	60.7	58.3	58.3	60.7	64.7	64.7	69.4	96.6	466.2	1991.6	2090.5
75°	53.5	51.9	51.9	54.3	57.5	56.7	61.5	73.4	261.8	977.0	1051.3
77.5°	43.9	43.1	43.9	47.9	49.5	47.1	51.9	59.1	142.1	414.3	396.7
80°	32.7	31.9	34.3	38.3	39.9	36.7	40.7	45.5	75.8	171.6	202.0
82.5°	23.1	23.1	23.1	27.1	27.9	24.7	29.5	32.7	42.3	156.5	261.8
85°	12.8	13.6	13.6	15.2	16.8	15.2	17.6	18.4	23.9	79.8	134.1
87.5°	4.0	4.8	5.6	6.4	7.2	4.8	7.2	8.0	8.8	15.2	14.4
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°	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7
2.5°	146.1	131.7	133.3	126.1	123.7	129.3	121.3	121.3	130.9	126.1	130.9
5°	186.8	168.4	162.8	151.7	136.5	130.9	136.5	150.1	174.0	177.2	181.2
7.5°	208.3	197.2	194.0	174.0	153.3	149.3	163.6	181.2	198.8	210.7	224.3
10°	215.5	207.5	204.3	190.8	202.0	206.7	205.9	203.5	220.3	225.1	228.3
12.5°	229.1	233.1	233.1	233.1	253.0	261.0	254.6	253.0	245.9	251.4	249.8
15°	252.2	253.8	268.2	275.4	296.1	300.9	289.0	270.6	265.8	261.0	258.6
17.5°	285.8	289.8	295.3	315.3	330.5	335.3	307.3	279.4	277.0	273.0	265.8
20°	312.1	319.3	330.5	348.0	360.0	340.0	309.7	277.8	277.0	281.0	280.2
22.5°	347.2	348.0	355.2	361.6	361.6	340.8	316.9	284.2	275.4	281.0	282.6
25°	380.8	386.3	388.7	399.9	383.9	334.5	305.7	285.8	273.8	289.8	283.4
27.5°	411.9	413.5	406.3	440.6	394.3	326.5	309.7	286.6	265.8	284.2	281.8
30°	443.8	476.5	451.0	480.5	415.9	332.1	295.3	274.6	261.8	285.8	281.8
32.5°	514.9	518.0	534.8	514.9	434.2	346.4	294.5	276.2	260.2	277.8	275.4
35°	581.1	607.4	603.5	563.5	435.0	349.6	304.9	268.2	255.4	278.6	277.8
37.5°	708.0	696.0	706.4	622.6	444.6	347.2	289.0	264.2	254.6	265.0	271.4
40°	746.3	728.0	794.2	690.5	455.0	339.2	274.6	258.6	234.7	247.4	251.4
42.5°	794.2	798.2	929.1	747.9	472.5	328.1	265.8	240.3	217.9	219.5	228.3
45°	901.2	897.2	1041.7	787.0	447.0	320.9	250.6	216.3	194.8	194.8	201.2
47.5°	1031.3	1020.1	1222.9	812.6	430.2	296.9	224.3	184.4	163.6	164.4	170.8
50°	1202.9	1206.1	1401.7	792.6	399.9	261.0	193.2	157.2	135.7	133.3	139.7
52.5°	1437.6	1428.0	1596.4	740.0	344.8	218.7	162.0	128.5	112.5	109.4	114.1
55°	1680.3	1713.8	1768.1	638.6	277.0	177.2	129.3	105.4	95.8	95.0	99.0
57.5°	2037.9	2146.4	1967.6	538.0	215.5	139.7	106.2	90.2	84.6	86.2	89.4
60°	2452.9	2700.4	2056.2	397.5	169.2	113.3	91.0	81.4	79.0	80.6	83.8
62.5°	3001.3	3378.1	2052.2	289.8	134.1	95.8	83.0	76.6	74.2	75.8	79.0
65°	3577.6	4024.6	1843.9	217.1	104.6	83.0	77.4	72.6	70.2	71.8	75.0
67.5°	3787.6	3995.9	1319.5	158.8	89.4	75.0	72.6	68.6	66.3	67.1	69.4
70°	3337.4	3188.1	800.6	118.1	75.8	67.8	67.8	63.9	61.5	61.5	63.9
72.5°	2160.8	1889.4	458.2	93.4	65.5	61.5	62.3	58.3	55.9	55.9	57.5
75°	1101.5	910.0	259.4	75.8	57.5	53.5	55.9	52.7	49.5	48.7	49.5
77.5°	382.3	395.9	154.9	61.5	48.7	45.5	47.1	44.7	40.7	39.9	40.7
80°	227.5	174.0	91.0	47.1	38.3	35.1	36.7	35.1	31.1	27.9	28.7
82.5°	333.7	151.7	51.9	32.7	27.1	22.4	26.3	23.9	20.0	20.0	20.0
85°	178.0	92.6	23.9	16.0	14.4	12.0	13.6	12.0	10.4	11.2	9.6
87.5°	12.8	15.2	8.0	6.4	5.6	4.0	5.6	5.6	4.8	4.0	2.4
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)