

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: P596059

Luminaire Tested: **MSA-SA2A-AMB-U-SL2**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596059
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-17)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-AMB-U-SL2
Description: POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE II SPILL LIGHT ELIMINATOR OPTICS.
Light Source: (32) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1736 lumens
Efficiency: N/A
Efficacy: 42.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

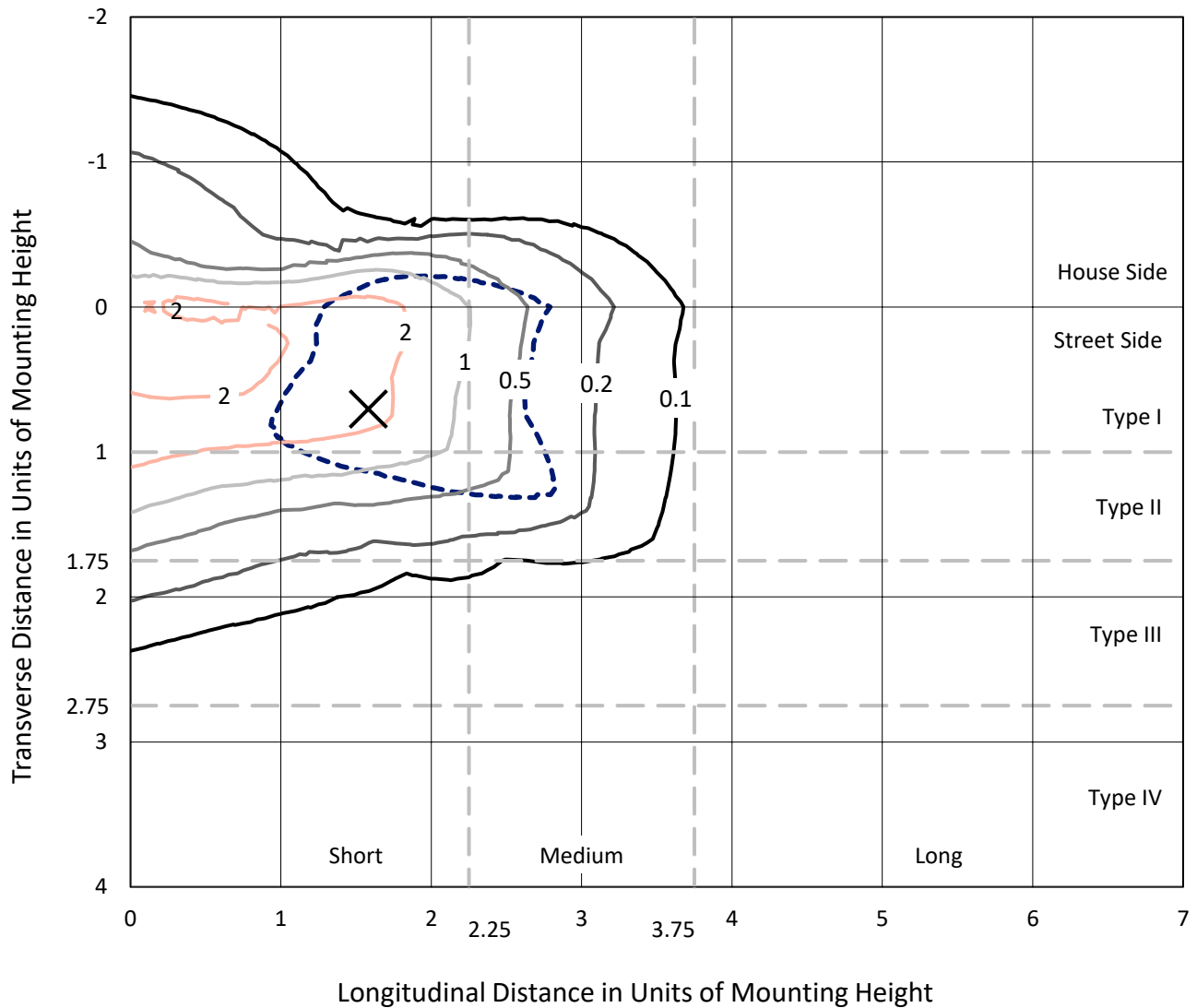
Input Watts (W): 41.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

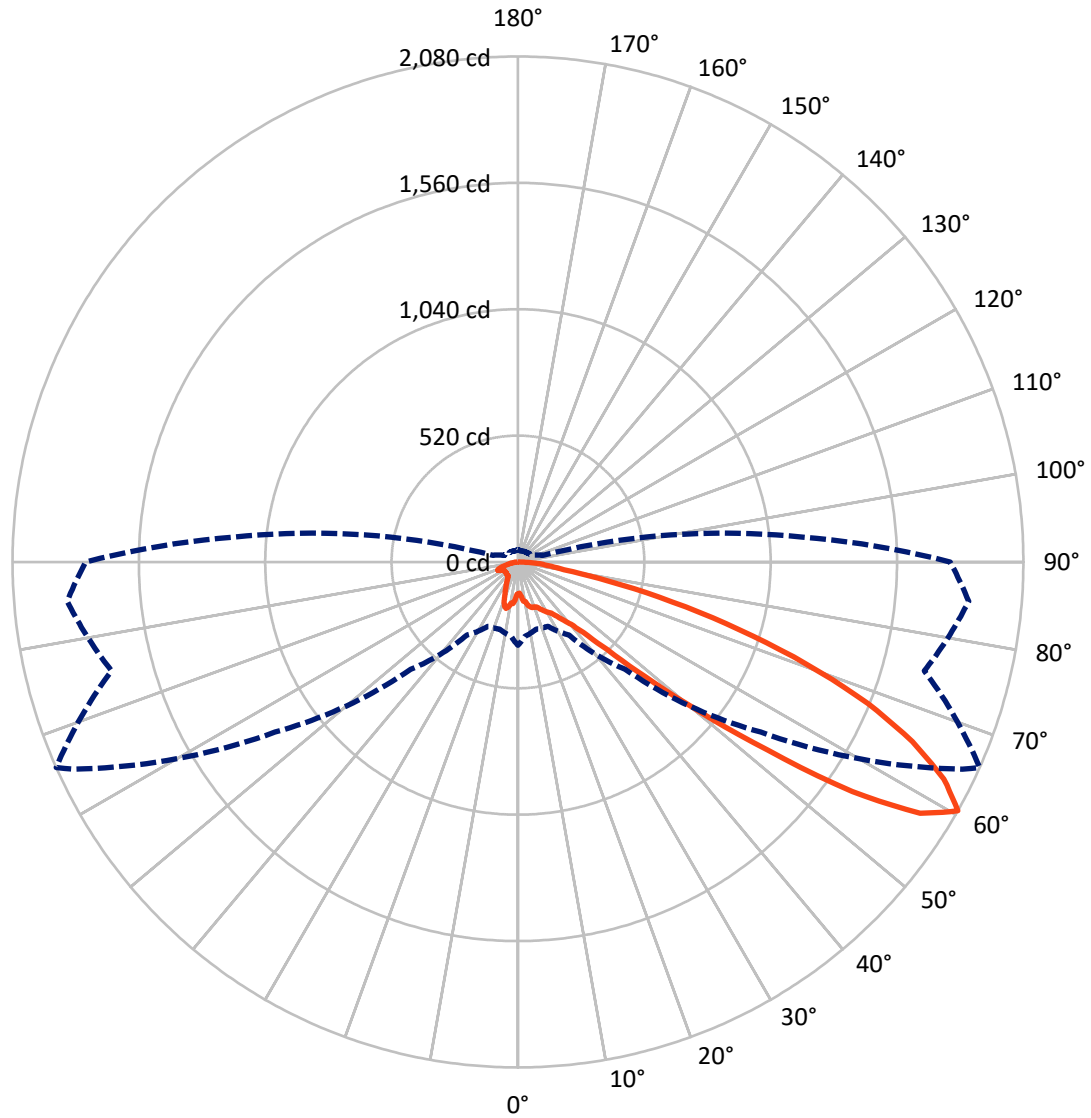
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.1 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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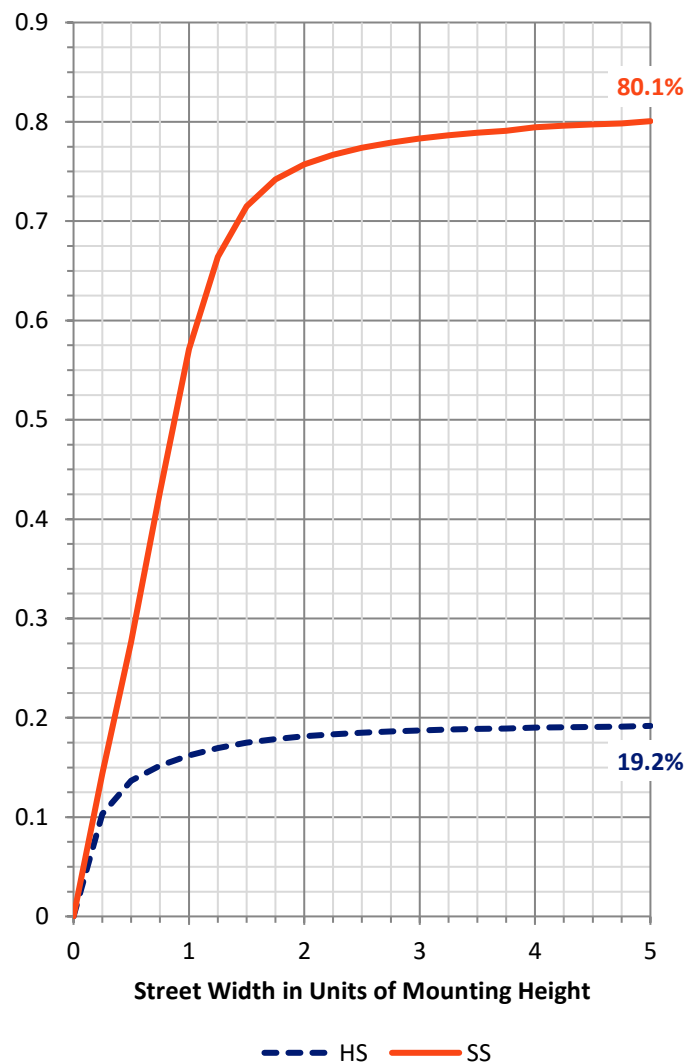
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	337.2	0.0	337.2
	% Fixture	19.4	0.0	19.4
Street Side	Lumens	1398.8	0.0	1398.8
	% Fixture	80.6	0.0	80.6
Total	Lumens	1736.0	0.0	1736.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	14.1	0.8
10°-20°	45.5	2.6
20°-30°	77.1	4.4
30°-40°	139.9	8.1
40°-50°	283.6	16.3
50°-60°	487.5	28.1
60°-70°	464.4	26.7
70°-80°	190.9	11.0
80°-90°	33.0	1.9
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°	1736.0	100.0
0°-180°	1736.0	100.0

Coefficient of Utilization



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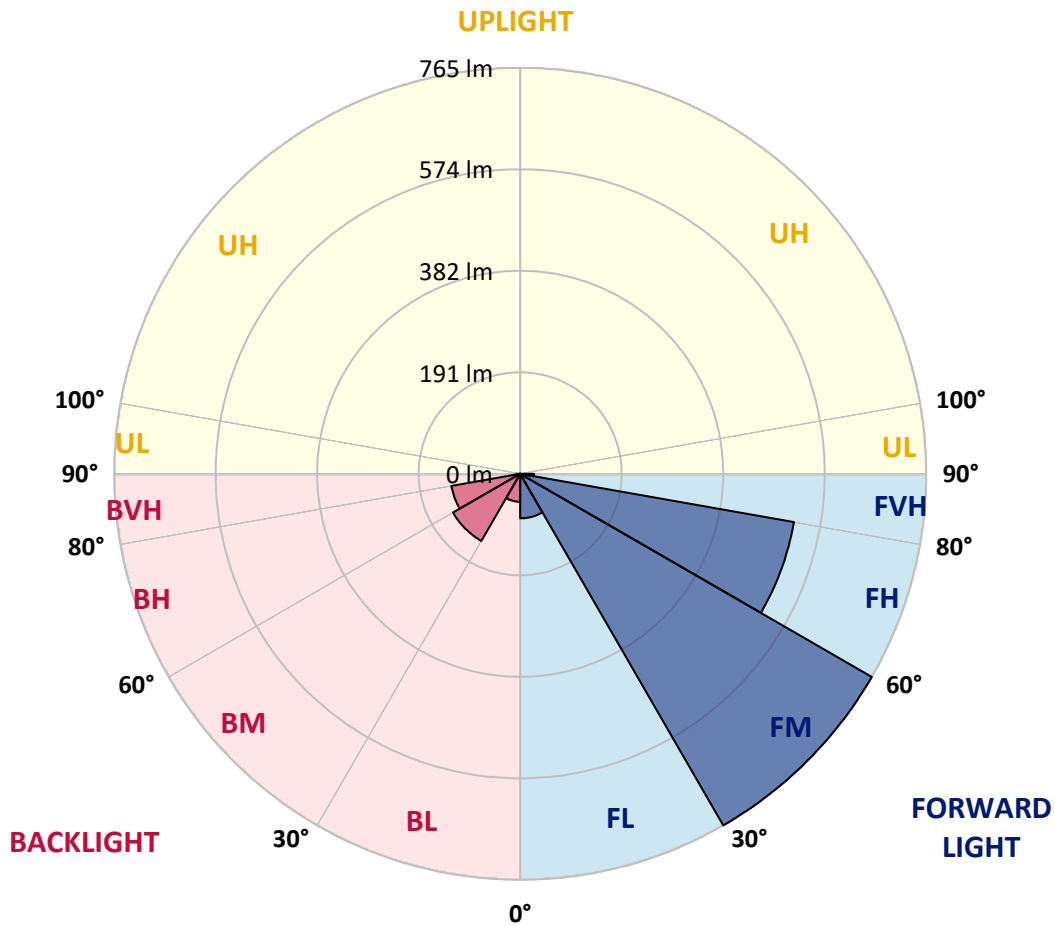
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	84.0	4.8			
FM (30°-60°)	764.9	44.1			
FH (60°-80°)	523.8	30.2			G0/660
FVH (80°-90°)	26.1	1.5			G1/100
BL (0°-30°)	52.8	3.0	B0/110		
BM (30°-60°)	146.1	8.4	B0/220		
BH (60°-80°)	131.5	7.6	B1/500		G1/500
BVH (80°-90°)	6.8	0.4			G0/10
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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	132.1	132.1	132.1	132.1	132.1	132.1	132.1	132.1	132.1	132.1	132.1
2.5°	145.7	128.6	123.3	115.0	117.4	124.4	124.4	126.2	128.6	138.0	149.2
5°	156.3	138.0	139.2	123.9	110.9	109.7	118.5	138.0	141.0	175.8	178.7
7.5°	156.9	144.5	143.9	129.8	113.2	115.6	135.1	162.2	162.2	185.2	205.8
10°	140.4	136.8	132.1	123.9	128.0	137.4	142.1	161.0	165.1	197.6	209.4
12.5°	130.3	129.8	138.6	135.1	148.0	159.2	163.4	182.8	182.8	204.7	224.1
15°	141.0	141.6	142.7	146.3	153.3	167.5	176.3	189.9	192.3	223.5	240.0
17.5°	157.5	159.8	157.5	161.0	163.4	172.2	182.8	195.8	197.6	237.7	270.7
20°	177.5	177.5	171.6	162.8	172.2	176.3	188.1	198.2	197.0	243.6	287.2
22.5°	203.5	199.9	182.8	172.8	172.8	176.3	187.6	200.5	201.7	244.2	312.0
25°	224.7	222.4	206.4	197.0	187.6	185.8	192.9	212.3	214.7	257.7	319.1
27.5°	257.1	253.6	225.3	219.4	203.5	188.7	200.5	226.5	227.7	259.5	333.8
30°	297.3	300.2	264.2	256.0	232.4	202.3	218.8	236.5	239.5	270.1	355.6
32.5°	359.2	358.6	321.4	293.1	267.2	238.3	227.1	245.4	250.7	291.9	379.2
35°	445.3	440.0	399.9	367.4	317.3	264.8	256.6	271.3	272.5	314.9	391.6
37.5°	542.0	527.9	487.2	464.2	417.0	329.1	301.4	303.2	303.7	335.6	426.4
40°	611.6	593.3	545.6	539.1	497.8	423.5	338.5	336.2	336.2	361.0	458.9
42.5°	673.5	654.1	602.8	617.5	593.9	536.7	414.0	394.0	396.3	398.7	525.5
45°	710.1	664.7	644.6	665.3	681.8	651.1	568.6	526.1	514.3	495.4	618.1
47.5°	670.6	631.7	615.2	661.7	736.7	834.6	788.6	728.4	704.8	648.2	736.7
50°	623.4	580.9	559.1	583.9	756.1	926.0	1001.5	993.8	962.5	828.7	897.7
52.5°	581.5	533.2	494.8	520.8	684.8	939.5	1198.5	1297.0	1285.2	1051.6	1130.6
55°	517.8	462.4	425.8	436.4	593.9	874.7	1330.6	1659.1	1668.5	1332.3	1423.2
57.5°	427.6	384.5	358.0	362.1	467.1	759.1	1312.3	1947.5	1951.0	1579.5	1706.9
60°	343.3	308.5	286.6	291.9	366.3	624.0	1219.7	2017.1	2079.6	1731.0	1861.4
62.5°	256.6	231.8	218.8	221.8	278.4	490.7	1061.6	1923.3	1967.0	1725.1	1853.7
65°	202.3	182.2	172.8	180.5	210.6	389.3	864.6	1748.1	1783.5	1580.1	1678.6
67.5°	165.1	149.8	139.8	158.1	182.8	240.6	694.8	1557.1	1552.9	1277.5	1339.4
70°	135.7	123.3	116.2	135.7	174.6	193.5	477.1	1265.1	1261.6	954.3	933.6
72.5°	100.9	93.2	92.6	113.2	166.9	186.4	261.3	951.3	950.7	745.5	672.4
75°	71.4	67.8	67.2	88.5	152.8	190.5	187.6	650.5	657.0	586.8	500.1
77.5°	55.4	51.3	49.5	60.2	126.8	184.6	168.1	373.9	378.6	336.8	250.1
80°	40.7	39.5	38.3	43.6	76.1	181.7	158.1	201.1	191.7	130.3	82.6
82.5°	21.8	21.8	26.5	31.3	49.0	154.5	152.2	136.2	124.4	43.1	41.9
85°	10.0	10.6	14.2	19.5	28.9	102.6	136.8	103.8	91.4	25.4	24.8
87.5°	1.8	2.9	3.5	5.3	7.1	24.2	40.7	37.2	31.8	8.8	6.5
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°	132.1	132.1	132.1	132.1	132.1	132.1	132.1	132.1	132.1	132.1	132.1
2.5°	159.8	140.4	146.9	132.1	129.2	135.7	132.1	132.7	138.6	139.2	155.1
5°	199.4	179.9	172.8	157.5	136.2	122.1	128.6	143.9	158.1	161.0	173.4
7.5°	221.2	204.7	200.5	169.3	138.6	130.3	130.9	139.2	146.9	152.2	161.6
10°	215.9	210.6	200.5	168.7	159.8	148.6	130.9	119.1	122.1	120.3	121.5
12.5°	233.6	226.5	212.3	187.0	169.9	146.9	125.0	111.5	101.4	97.9	97.9
15°	244.8	244.2	225.3	194.0	161.6	129.2	106.8	92.6	83.8	79.6	77.3
17.5°	269.5	270.7	229.4	185.2	135.7	108.5	86.7	73.7	71.4	72.5	72.0
20°	290.8	282.5	228.8	162.2	112.7	84.3	67.8	63.7	66.1	69.0	69.6
22.5°	314.4	287.8	214.7	133.9	88.5	64.9	60.2	59.0	62.5	67.8	69.0
25°	322.0	297.3	201.1	112.7	71.4	55.4	54.9	56.0	60.2	66.1	66.6
27.5°	336.2	294.9	181.7	96.7	58.4	51.9	53.1	54.9	56.6	61.9	63.1
30°	338.5	312.6	162.8	84.3	54.3	50.7	51.3	52.5	54.9	59.6	60.7
32.5°	361.5	301.4	152.2	70.8	52.5	50.7	50.7	51.9	54.9	58.4	59.6
35°	366.3	312.6	141.0	63.1	52.5	50.1	50.1	51.3	54.9	59.0	59.6
37.5°	400.5	324.4	136.2	61.9	52.5	50.7	50.1	51.9	55.4	60.2	61.9
40°	435.9	345.0	135.7	61.3	53.1	51.3	51.3	52.5	56.6	61.3	63.7
42.5°	498.4	391.6	134.5	61.3	53.7	52.5	51.9	53.7	57.2	61.3	63.7
45°	573.3	424.1	126.8	60.7	53.7	54.3	53.1	54.3	56.6	60.7	63.7
47.5°	673.0	465.3	119.7	60.2	54.9	56.6	54.3	54.3	56.0	59.6	61.3
50°	813.3	540.8	116.2	60.2	56.6	57.8	54.9	53.7	54.9	57.2	59.6
52.5°	1014.4	664.7	113.2	60.7	58.4	57.8	54.9	53.1	53.1	55.4	57.8
55°	1305.8	826.9	110.3	60.7	58.4	56.6	54.3	52.5	51.9	53.1	54.9
57.5°	1587.1	1050.4	107.3	61.9	57.8	55.4	53.1	50.7	49.5	50.7	53.1
60°	1778.8	1174.3	106.2	63.1	58.4	53.1	51.3	49.0	47.2	48.4	50.7
62.5°	1769.4	1148.9	108.5	68.4	59.0	50.7	49.0	46.6	44.8	46.0	47.8
65°	1623.1	1020.3	120.3	76.1	60.7	48.4	46.0	44.2	42.5	43.1	44.8
67.5°	1356.5	864.6	133.3	84.3	61.3	45.4	43.1	40.7	39.5	40.7	41.9
70°	1026.8	703.0	118.5	83.8	57.2	41.9	39.5	38.3	36.6	37.2	38.3
72.5°	784.4	566.2	91.4	74.3	51.9	38.3	37.2	34.8	33.0	33.6	34.8
75°	530.2	378.1	70.8	57.8	43.1	33.0	33.6	31.3	29.5	30.1	30.7
77.5°	238.3	159.8	50.1	41.9	33.0	27.7	29.5	27.1	25.4	26.0	26.0
80°	72.5	55.4	31.8	29.5	25.4	21.8	23.6	22.4	20.6	20.6	21.2
82.5°	44.2	35.4	21.2	19.5	18.3	15.3	17.7	17.1	15.3	15.3	14.7
85°	24.8	20.6	13.6	12.4	10.6	7.7	10.0	10.0	9.4	9.4	8.8
87.5°	5.3	7.1	5.9	5.3	4.7	2.9	4.7	4.7	4.7	4.1	2.9
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)