

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: P596082

Luminaire Tested: **MSA-SA3A-AMB-U-SL2**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596082
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-SA3A-AMB-U-SL2
Description: POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE II SPILL LIGHT ELIMINATOR OPTICS.
Light Source: (48) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2349 lumens
Efficiency: N/A
Efficacy: 39.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

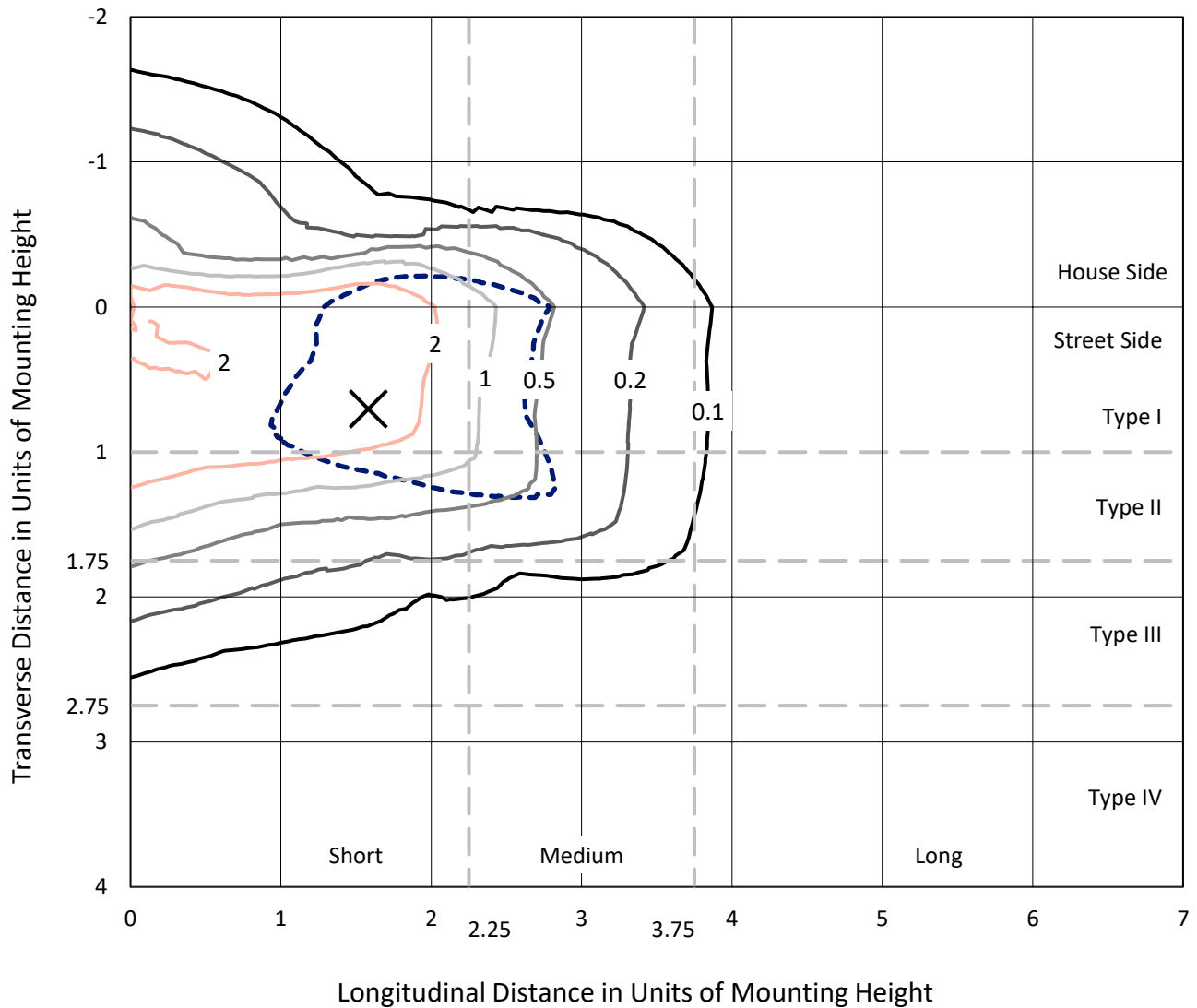
Input Watts (W): 59.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596082
 CATALOG NUMBER: MSA-SA3A-AMB-U-SL2

Iso-Footcandle Lines of Horizontal Illumination

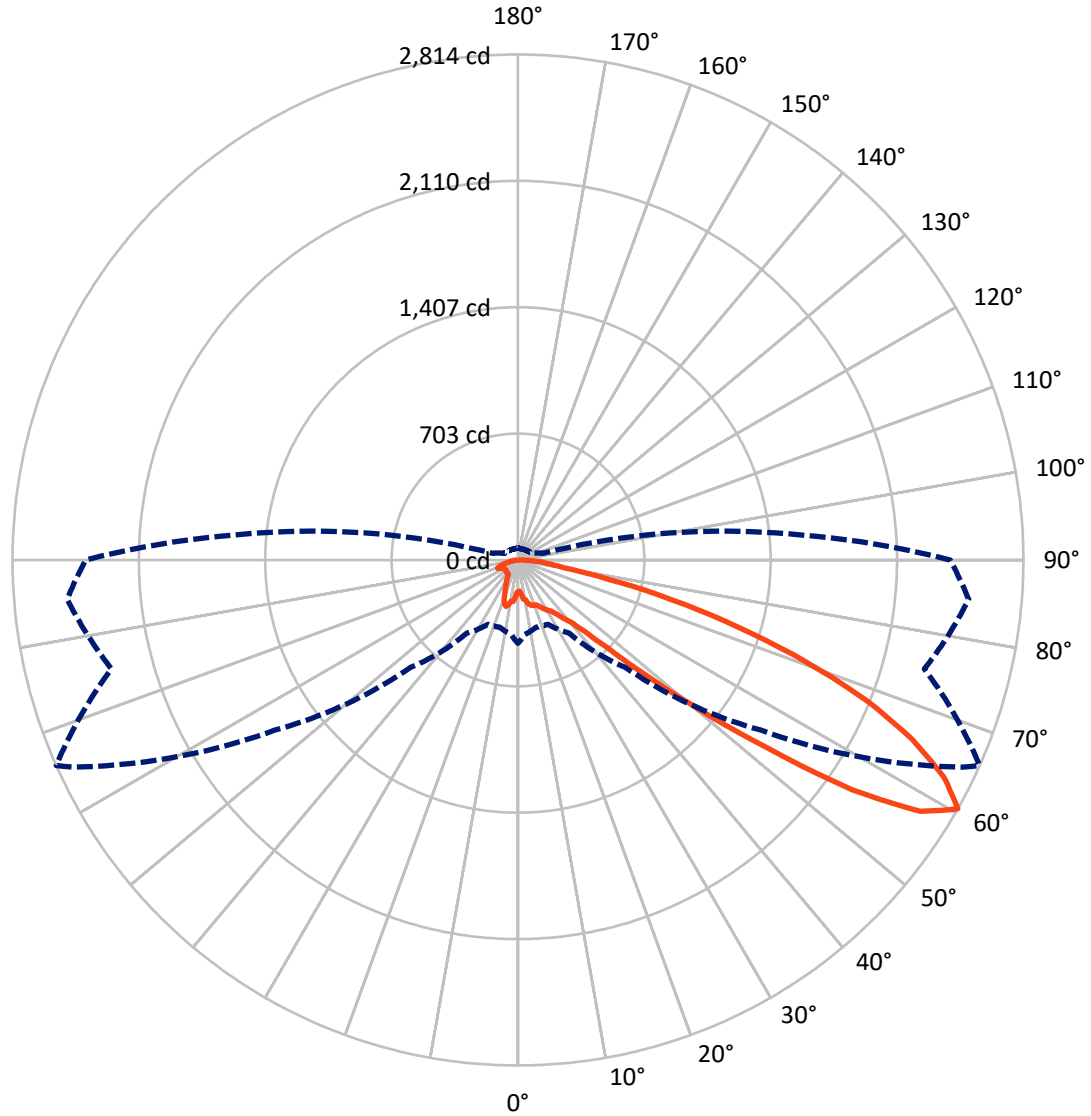
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.2 fc
 Type II - Short - N/A

REPORT NUMBER: P596082
CATALOG NUMBER: MSA-SA3A-AMB-U-SL2

Luminous Intensity Polar Plot



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

REPORT NUMBER: P596082

CATALOG NUMBER: MSA-SA3A-AMB-U-SL2

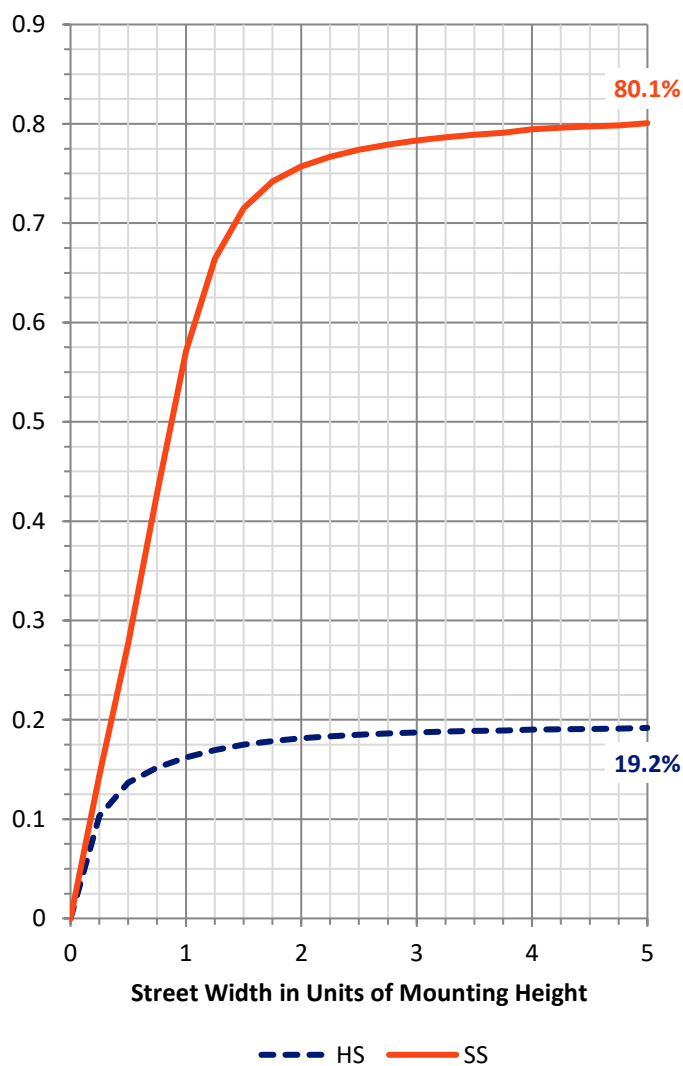
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	456.2	0.0	456.2
	% Fixture	19.4	0.0	19.4
Street Side	Lumens	1892.8	0.0	1892.8
	% Fixture	80.6	0.0	80.6
Total	Lumens	2349.0	0.0	2349.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.1	0.8
10°-20°	61.6	2.6
20°-30°	104.3	4.4
30°-40°	189.3	8.1
40°-50°	383.7	16.3
50°-60°	659.6	28.1
60°-70°	628.3	26.7
70°-80°	258.4	11.0
80°-90°	44.6	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°	2349.0	100.0
0°-180°	2349.0	100.0

Coefficient of Utilization



REPORT NUMBER: P596082

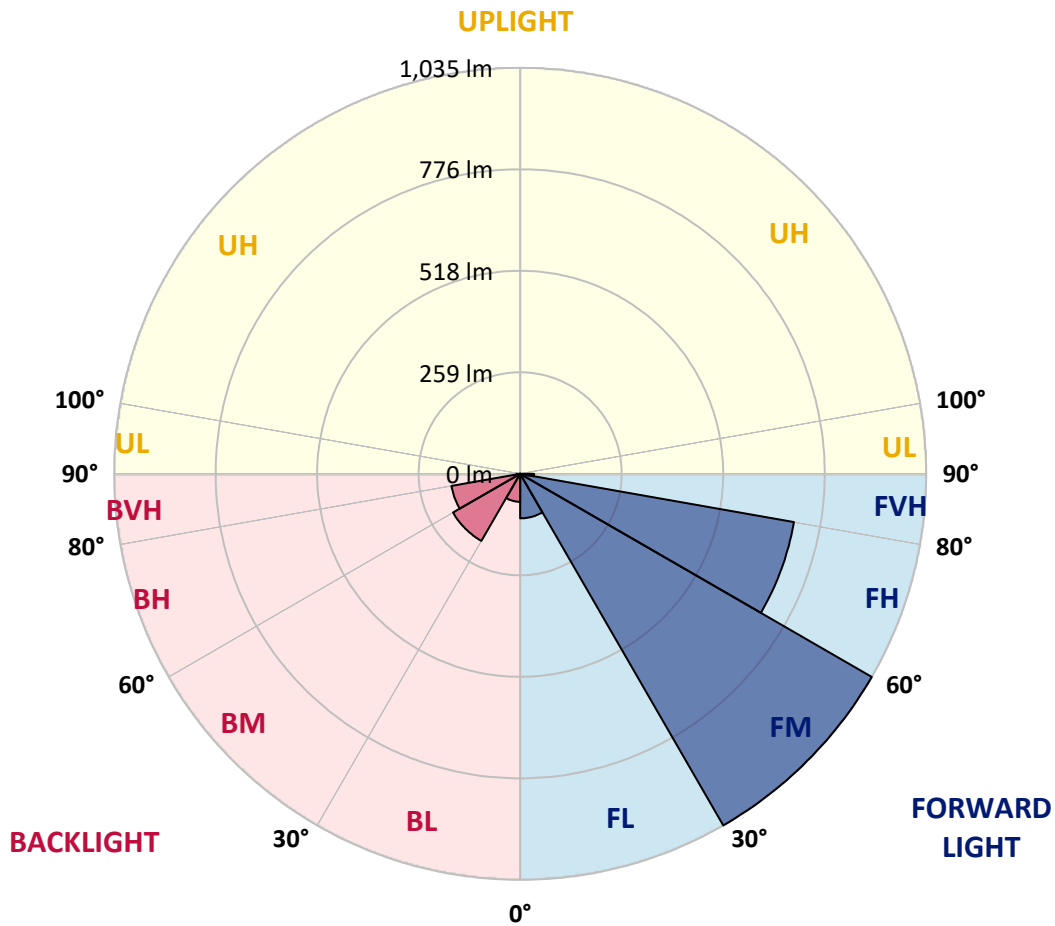
CATALOG NUMBER: MSA-SA3A-AMB-U-SL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	113.6	4.8			
FM (30°-60°)	1035.0	44.1			
FH (60°-80°)	708.8	30.2			G1/1800
FVH (80°-90°)	35.3	1.5			G1/100
BL (0°-30°)	71.4	3.0	B0/110		
BM (30°-60°)	197.6	8.4	B0/220		
BH (60°-80°)	177.9	7.6	B1/500		G1/500
BVH (80°-90°)	9.3	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





REPORT NUMBER: P596082
 CATALOG NUMBER: MSA-SA3A-AMB-U-SL2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	178.8	178.8	178.8	178.8	178.8	178.8	178.8	178.8	178.8	178.8	178.8
2.5°	197.1	174.0	166.8	155.6	158.8	168.4	168.4	170.8	174.0	186.7	201.9
5°	211.5	186.7	188.3	167.6	150.0	148.4	160.4	186.7	190.7	237.8	241.8
7.5°	212.3	195.5	194.7	175.6	153.2	156.4	182.8	219.5	219.5	250.6	278.5
10°	189.9	185.1	178.8	167.6	173.2	185.9	192.3	217.9	223.5	267.3	283.3
12.5°	176.4	175.6	187.5	182.8	200.3	215.5	221.1	247.4	247.4	276.9	303.3
15°	190.7	191.5	193.1	197.9	207.5	226.6	238.6	257.0	260.2	302.5	324.8
17.5°	213.1	216.3	213.1	217.9	221.1	233.0	247.4	265.0	267.3	321.6	366.3
20°	240.2	240.2	232.2	220.3	233.0	238.6	254.6	268.1	266.6	329.6	388.7
22.5°	275.3	270.5	247.4	233.8	233.8	238.6	253.8	271.3	272.9	330.4	422.2
25°	304.1	300.9	279.3	266.6	253.8	251.4	261.0	287.3	290.5	348.8	431.7
27.5°	348.0	343.2	304.9	296.9	275.3	255.4	271.3	306.5	308.0	351.1	451.7
30°	402.2	406.2	357.5	346.4	314.4	273.7	296.1	320.0	324.0	365.5	481.2
32.5°	486.0	485.2	434.9	396.6	361.5	322.4	307.3	332.0	339.2	395.0	513.1
35°	602.5	595.3	541.1	497.2	429.4	358.3	347.2	367.1	368.7	426.2	529.9
37.5°	733.4	714.3	659.2	628.1	564.2	445.3	407.8	410.2	411.0	454.1	577.0
40°	827.6	802.8	738.2	729.4	673.6	573.0	458.1	454.9	454.9	488.4	620.9
42.5°	911.4	885.0	815.6	835.6	803.6	726.2	560.2	533.1	536.3	539.5	711.1
45°	960.9	899.4	872.3	900.2	922.6	881.1	769.3	711.9	695.9	670.4	836.4
47.5°	907.4	854.7	832.4	895.4	996.8	1129.2	1067.0	985.6	953.7	877.1	996.8
50°	843.5	786.1	756.6	790.1	1023.1	1252.9	1355.1	1344.7	1302.4	1121.3	1214.6
52.5°	786.9	721.4	669.6	704.7	926.5	1271.3	1621.6	1754.9	1739.0	1422.9	1529.9
55°	700.7	625.7	576.2	590.6	803.6	1183.5	1800.4	2244.9	2257.7	1802.8	1925.7
57.5°	578.6	520.3	484.4	490.0	632.1	1027.1	1775.7	2635.2	2640.0	2137.2	2309.6
60°	464.5	417.4	387.9	395.0	495.6	844.3	1650.4	2729.4	2813.9	2342.3	2518.7
62.5°	347.2	313.6	296.1	300.1	376.7	664.0	1436.5	2602.5	2661.5	2334.3	2508.3
65°	273.7	246.6	233.8	244.2	284.9	526.7	1169.9	2365.4	2413.3	2138.0	2271.3
67.5°	223.5	202.7	189.1	213.9	247.4	325.6	940.1	2106.9	2101.3	1728.6	1812.4
70°	183.6	166.8	157.2	183.6	236.2	261.8	645.6	1711.8	1707.0	1291.3	1263.3
72.5°	136.5	126.1	125.3	153.2	225.8	252.2	353.5	1287.3	1286.5	1008.7	909.8
75°	96.6	91.8	91.0	119.7	206.7	257.8	253.8	880.3	889.0	794.1	676.8
77.5°	75.0	69.4	67.0	81.4	171.6	249.8	227.4	506.0	512.4	455.7	338.4
80°	55.1	53.5	51.9	59.1	102.9	245.8	213.9	272.1	259.4	176.4	111.7
82.5°	29.5	29.5	35.9	42.3	66.2	209.1	205.9	184.4	168.4	58.3	56.7
85°	13.6	14.4	19.2	26.3	39.1	138.9	185.1	140.5	123.7	34.3	33.5
87.5°	2.4	4.0	4.8	7.2	9.6	32.7	55.1	50.3	43.1	12.0	8.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P596082
 CATALOG NUMBER: MSA-SA3A-AMB-U-SL2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	178.8	178.8	178.8	178.8	178.8	178.8	178.8	178.8	178.8	178.8	178.8
2.5°	216.3	189.9	198.7	178.8	174.8	183.6	178.8	179.6	187.5	188.3	209.9
5°	269.7	243.4	233.8	213.1	184.4	165.2	174.0	194.7	213.9	217.9	234.6
7.5°	299.3	276.9	271.3	229.0	187.5	176.4	177.2	188.3	198.7	205.9	218.7
10°	292.1	284.9	271.3	228.2	216.3	201.1	177.2	161.2	165.2	162.8	164.4
12.5°	316.0	306.5	287.3	253.0	229.8	198.7	169.2	150.8	137.3	132.5	132.5
15°	331.2	330.4	304.9	262.6	218.7	174.8	144.4	125.3	113.3	107.7	104.5
17.5°	364.7	366.3	310.4	250.6	183.6	146.8	117.3	99.8	96.6	98.2	97.4
20°	393.4	382.3	309.6	219.5	152.4	114.1	91.8	86.2	89.4	93.4	94.2
22.5°	425.4	389.5	290.5	181.2	119.7	87.8	81.4	79.8	84.6	91.8	93.4
25°	435.7	402.2	272.1	152.4	96.6	75.0	74.2	75.8	81.4	89.4	90.2
27.5°	454.9	399.0	245.8	130.9	79.0	70.2	71.8	74.2	76.6	83.8	85.4
30°	458.1	423.0	220.3	114.1	73.4	68.6	69.4	71.0	74.2	80.6	82.2
32.5°	489.2	407.8	205.9	95.8	71.0	68.6	68.6	70.2	74.2	79.0	80.6
35°	495.6	423.0	190.7	85.4	71.0	67.8	67.8	69.4	74.2	79.8	80.6
37.5°	541.9	438.9	184.4	83.8	71.0	68.6	67.8	70.2	75.0	81.4	83.8
40°	589.8	466.9	183.6	83.0	71.8	69.4	69.4	71.0	76.6	83.0	86.2
42.5°	674.4	529.9	182.0	83.0	72.6	71.0	70.2	72.6	77.4	83.0	86.2
45°	775.7	573.8	171.6	82.2	72.6	73.4	71.8	73.4	76.6	82.2	86.2
47.5°	910.6	629.7	162.0	81.4	74.2	76.6	73.4	73.4	75.8	80.6	83.0
50°	1100.5	731.8	157.2	81.4	76.6	78.2	74.2	72.6	74.2	77.4	80.6
52.5°	1372.7	899.4	153.2	82.2	79.0	78.2	74.2	71.8	71.8	75.0	78.2
55°	1766.9	1118.9	149.2	82.2	79.0	76.6	73.4	71.0	70.2	71.8	74.2
57.5°	2147.6	1421.3	145.2	83.8	78.2	75.0	71.8	68.6	67.0	68.6	71.8
60°	2406.9	1588.9	143.7	85.4	79.0	71.8	69.4	66.2	63.8	65.4	68.6
62.5°	2394.2	1554.6	146.8	92.6	79.8	68.6	66.2	63.0	60.7	62.2	64.6
65°	2196.2	1380.6	162.8	102.9	82.2	65.4	62.2	59.9	57.5	58.3	60.7
67.5°	1835.5	1169.9	180.4	114.1	83.0	61.5	58.3	55.1	53.5	55.1	56.7
70°	1389.4	951.3	160.4	113.3	77.4	56.7	53.5	51.9	49.5	50.3	51.9
72.5°	1061.4	766.1	123.7	100.6	70.2	51.9	50.3	47.1	44.7	45.5	47.1
75°	717.5	511.6	95.8	78.2	58.3	44.7	45.5	42.3	39.9	40.7	41.5
77.5°	322.4	216.3	67.8	56.7	44.7	37.5	39.9	36.7	34.3	35.1	35.1
80°	98.2	75.0	43.1	39.9	34.3	29.5	31.9	30.3	27.9	27.9	28.7
82.5°	59.9	47.9	28.7	26.3	24.7	20.7	23.9	23.1	20.7	20.7	20.0
85°	33.5	27.9	18.4	16.8	14.4	10.4	13.6	13.6	12.8	12.8	12.0
87.5°	7.2	9.6	8.0	7.2	6.4	4.0	6.4	6.4	6.4	5.6	4.0
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)