

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: P596038

Luminaire Tested: **MSA-SA1A-AMB-U-SL3**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596038
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-19)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1A-AMB-U-SL3
Description: POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE III SPILL LIGHT ELIMINATOR OPTICS.
Light Source: (16) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 876 lumens
Efficiency: N/A
Efficacy: 42.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G1

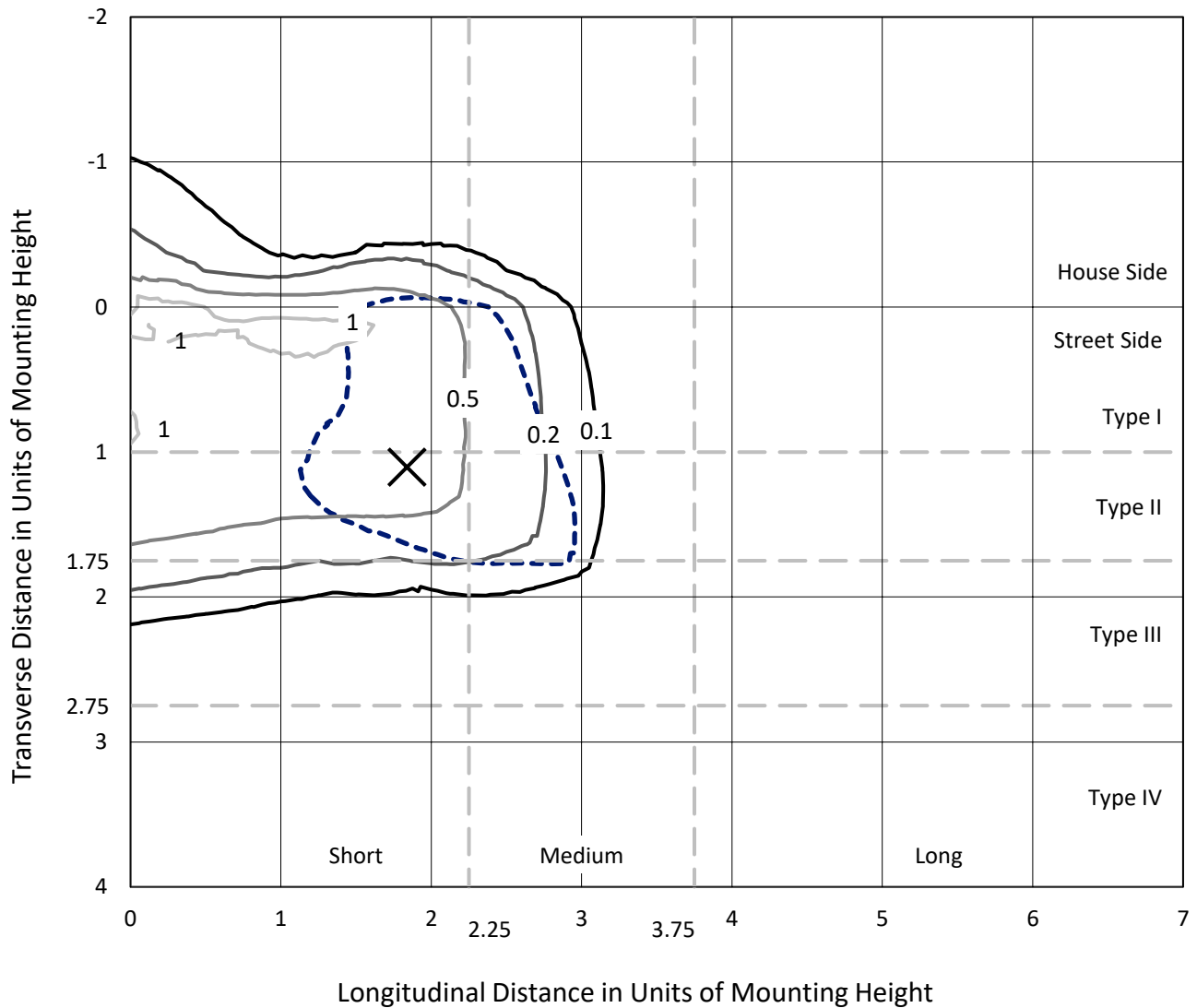
Input Watts (W): 20.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

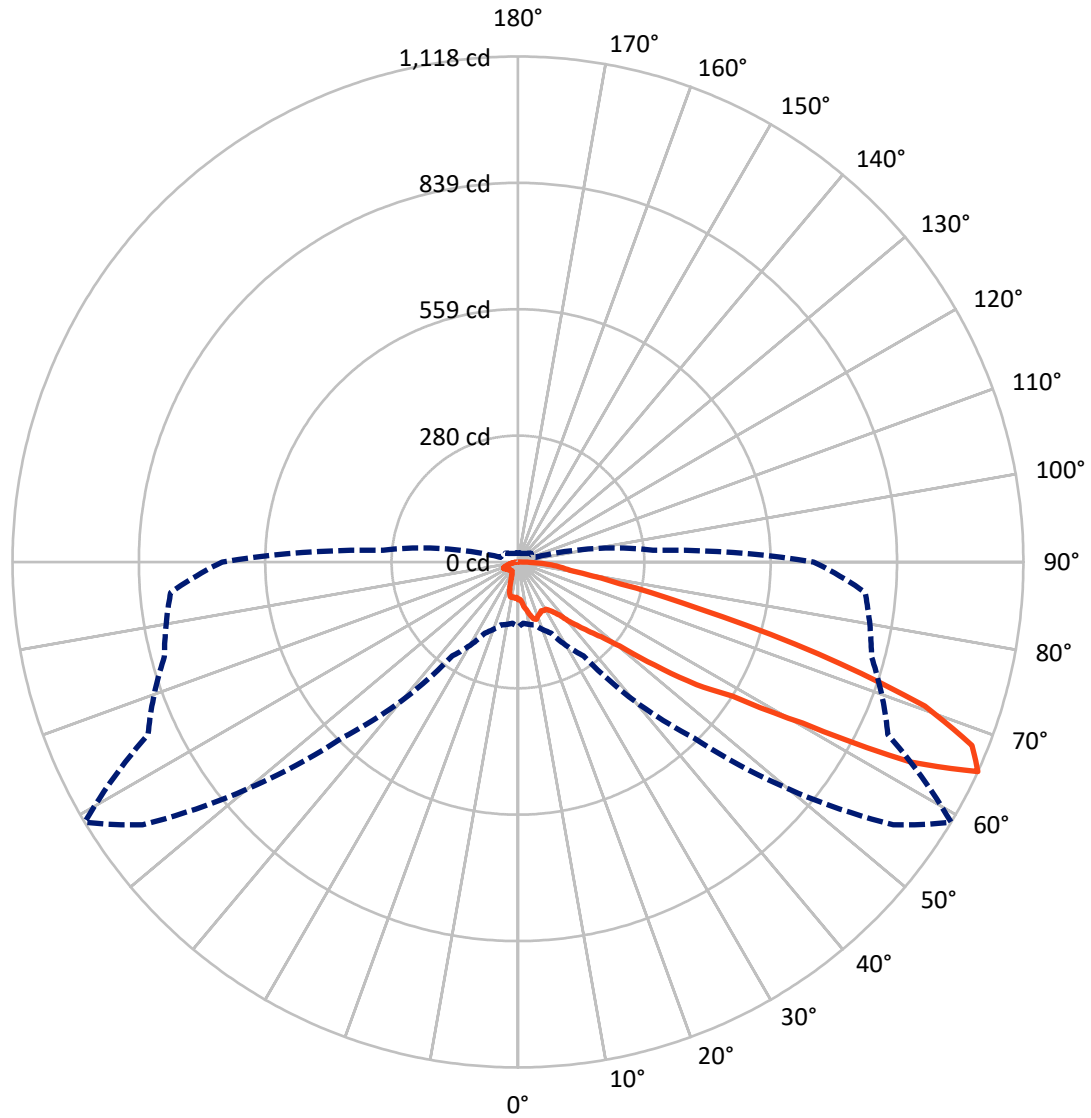
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.3 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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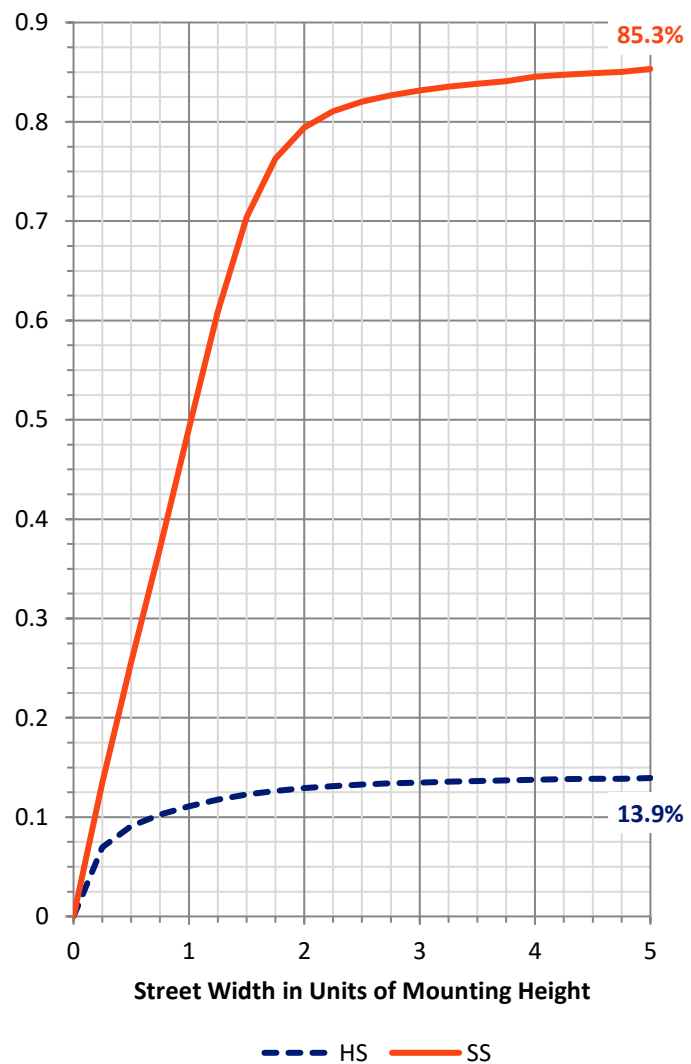
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	123.6	0.0	123.6
	% Fixture	14.1	0.0	14.1
Street Side	Lumens	752.5	0.0	752.5
	% Fixture	85.9	0.0	85.9
Total	Lumens	876.0	0.0	876.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	8.8	1.0
10°-20°	25.6	2.9
20°-30°	38.9	4.4
30°-40°	61.1	7.0
40°-50°	114.1	13.0
50°-60°	224.9	25.7
60°-70°	280.0	32.0
70°-80°	104.6	11.9
80°-90°	18.0	2.0
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°	876.0	100.0
0°-180°	876.0	100.0

Coefficient of Utilization



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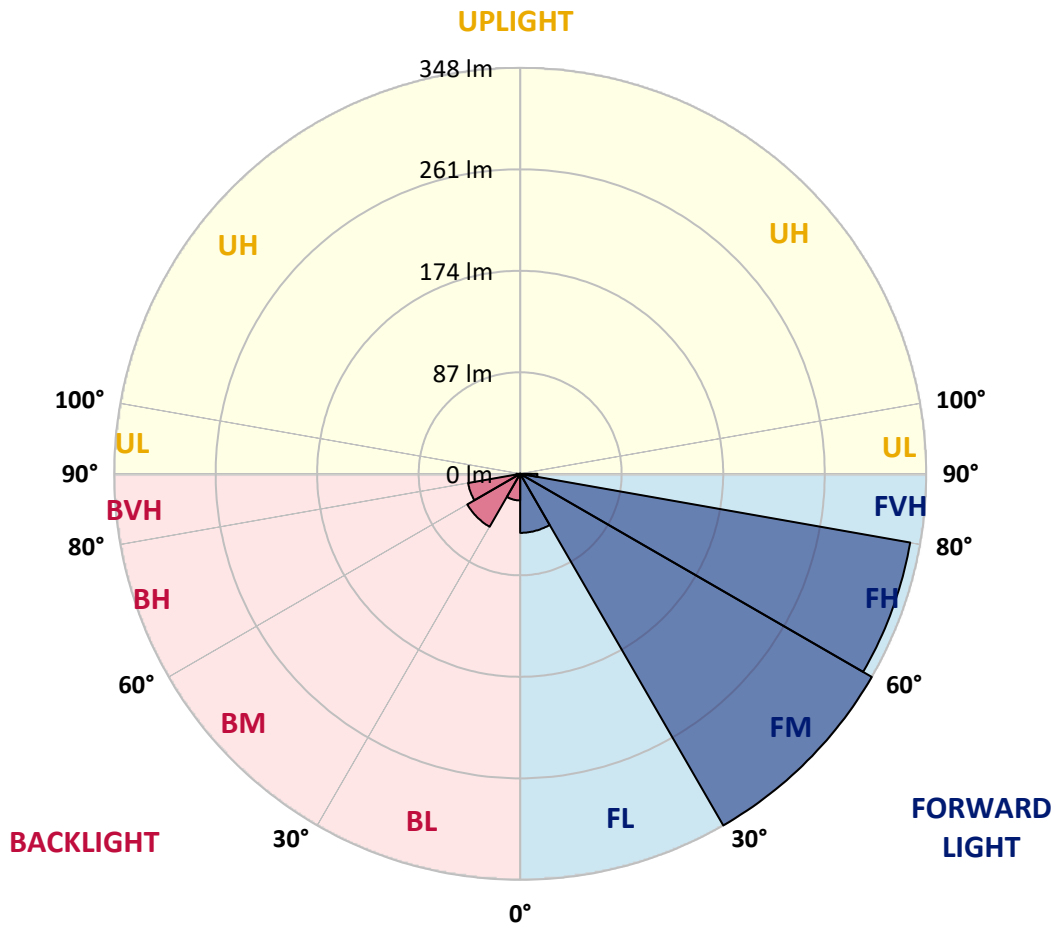
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	50.6	5.8			
FM (30°-60°)	347.8	39.7			
FH (60°-80°)	339.3	38.7			G0/660
FVH (80°-90°)	14.8	1.7			G1/100
BL (0°-30°)	22.8	2.6	B0/110		
BM (30°-60°)	52.3	6.0	B0/220		
BH (60°-80°)	45.3	5.2	B0/110		G0/110
BVH (80°-90°)	3.1	0.4			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0
2.5°	110.3	95.3	88.8	82.2	82.5	87.6	85.8	82.2	85.2	91.2	94.5
5°	122.9	106.7	108.2	96.5	85.8	83.1	84.0	88.8	97.1	115.7	113.3
7.5°	123.2	112.7	113.6	102.5	87.9	87.9	97.7	101.3	112.7	122.6	125.0
10°	107.3	104.0	102.2	94.8	99.2	105.2	106.7	109.1	114.8	127.1	124.7
12.5°	95.9	95.9	103.1	102.2	110.0	118.7	122.6	121.1	128.6	132.5	127.1
15°	96.8	97.7	99.8	104.6	111.5	122.3	128.9	130.4	135.2	142.1	131.9
17.5°	102.5	104.0	102.2	106.1	112.7	121.1	128.9	133.4	135.2	151.4	142.4
20°	108.5	108.8	105.8	101.3	109.7	116.3	126.5	127.1	133.1	152.6	147.2
22.5°	117.5	114.8	106.1	101.9	103.7	109.4	119.3	124.1	131.0	151.1	154.7
25°	122.6	120.8	113.3	107.9	105.8	108.5	115.7	119.6	133.4	161.0	154.1
27.5°	129.5	128.9	114.8	115.7	108.5	103.7	113.9	121.7	135.8	158.9	156.5
30°	140.9	140.9	124.1	122.0	115.1	104.6	117.8	121.1	136.7	164.6	163.4
32.5°	158.0	156.2	140.6	129.2	122.9	118.7	118.1	127.4	137.6	176.9	172.4
35°	173.3	173.9	154.4	144.5	132.8	125.0	131.3	136.4	148.1	192.5	180.8
37.5°	207.5	198.8	175.7	161.0	155.3	146.3	150.8	148.7	164.6	210.8	206.9
40°	229.4	220.7	200.6	187.7	167.9	169.7	164.9	170.3	179.9	237.2	239.3
42.5°	255.2	244.4	224.6	217.1	195.8	182.3	181.4	191.3	202.1	268.7	270.8
45°	275.9	260.6	246.8	241.7	235.7	217.7	214.4	217.1	230.9	306.4	308.5
47.5°	297.1	282.5	269.9	267.5	262.4	272.3	249.5	247.1	262.1	353.5	346.9
50°	336.7	314.5	304.6	296.2	309.7	325.3	302.5	292.0	298.9	399.4	402.4
52.5°	394.9	371.2	360.1	357.1	363.1	362.8	395.2	379.0	363.7	447.4	466.9
55°	408.4	388.0	382.9	404.8	440.2	431.5	493.2	478.8	457.0	508.2	547.2
57.5°	391.0	370.3	366.4	392.5	455.8	547.5	586.2	559.8	545.4	599.1	662.4
60°	299.5	281.3	292.6	345.4	442.9	593.7	746.3	723.5	659.1	722.0	780.8
62.5°	219.8	203.6	210.5	234.8	363.1	612.9	938.2	975.1	804.8	804.5	811.7
65°	143.9	136.1	144.2	173.3	253.1	549.6	1013.5	1118.1	902.8	809.6	770.9
67.5°	104.9	95.3	91.5	104.0	164.3	377.5	978.7	1083.3	938.8	752.3	647.7
70°	83.7	78.6	71.4	78.0	106.4	229.7	792.8	955.0	811.4	580.2	433.3
72.5°	68.4	62.4	59.7	65.1	92.4	121.1	495.6	694.7	593.4	385.0	260.6
75°	54.0	50.4	50.4	57.9	85.8	97.4	282.8	412.0	360.7	223.4	113.3
77.5°	40.5	37.5	39.3	49.8	79.2	93.3	142.7	230.9	181.1	94.2	41.4
80°	27.9	27.0	28.5	40.2	68.7	89.7	101.9	123.2	81.9	37.2	24.3
82.5°	16.5	15.3	19.2	28.5	50.4	81.6	91.2	94.5	50.4	20.4	15.3
85°	8.1	7.8	10.8	16.2	32.4	66.0	75.6	70.8	31.2	11.4	8.4
87.5°	1.2	1.8	2.1	3.6	7.2	16.2	24.6	26.4	10.5	3.6	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0
2.5°	100.4	85.8	89.1	79.5	76.8	78.3	77.7	77.4	81.3	80.1	86.4
5°	122.6	109.1	102.8	88.5	75.6	68.7	72.3	78.9	87.6	87.9	96.8
7.5°	131.3	117.5	109.7	88.8	70.8	65.4	68.4	71.7	77.4	77.7	82.2
10°	122.6	116.0	103.4	83.4	76.2	69.9	61.5	55.8	56.4	55.8	56.1
12.5°	124.4	116.3	101.6	84.6	75.0	62.7	52.2	47.1	41.4	39.0	39.6
15°	125.6	119.0	101.9	82.8	65.4	53.1	42.9	36.6	33.3	31.5	31.2
17.5°	130.4	124.4	96.8	73.8	53.7	42.3	34.5	31.2	30.6	30.3	29.4
20°	134.9	121.4	87.9	59.4	43.8	33.9	30.3	28.5	28.8	30.0	29.7
22.5°	138.2	119.9	77.1	47.7	33.9	29.1	27.3	26.7	27.9	30.0	30.3
25°	138.2	117.2	66.0	39.6	29.1	25.8	25.5	26.1	27.6	29.7	29.7
27.5°	139.1	111.2	54.6	32.7	25.8	23.7	24.3	25.5	26.1	29.1	29.4
30°	136.4	110.3	46.5	28.8	24.0	22.5	23.4	24.3	25.5	28.2	28.5
32.5°	144.2	100.7	40.8	26.4	23.1	22.2	22.8	23.7	25.2	27.6	28.2
35°	148.4	99.2	36.9	25.2	22.8	21.9	22.5	23.4	25.2	27.6	27.9
37.5°	169.1	97.4	34.2	25.2	23.1	22.2	22.5	23.4	25.5	27.6	28.5
40°	191.9	99.2	33.0	25.5	23.1	22.8	22.8	23.7	25.5	27.9	28.8
42.5°	217.1	102.8	33.0	25.8	23.7	22.8	22.8	24.0	25.8	28.2	29.1
45°	245.9	107.6	32.7	26.4	24.0	23.7	23.1	24.3	25.8	28.2	29.4
47.5°	280.1	116.3	33.6	26.4	24.6	24.3	24.0	24.3	25.8	28.2	29.7
50°	319.9	133.4	34.2	27.0	26.1	25.2	24.3	24.6	25.8	28.2	29.4
52.5°	382.3	166.7	35.4	27.9	27.0	25.8	24.9	24.6	25.5	27.3	28.5
55°	462.1	220.1	37.5	29.1	27.9	26.7	25.5	24.3	24.9	26.1	27.6
57.5°	583.8	295.0	40.2	30.0	28.2	27.0	25.2	23.7	23.7	24.9	25.8
60°	681.5	350.2	41.7	30.9	29.4	26.7	24.6	22.8	22.5	23.1	24.0
62.5°	698.9	340.9	42.6	32.7	31.2	26.7	23.7	21.6	21.0	21.6	22.2
65°	654.0	299.5	41.4	34.2	33.6	26.4	23.1	20.7	19.8	20.1	20.4
67.5°	543.9	234.2	37.5	34.8	34.2	25.5	22.5	19.8	18.6	18.6	18.9
70°	365.2	164.0	33.6	33.3	31.2	23.4	21.0	18.6	17.4	17.4	17.4
72.5°	211.7	97.1	29.7	29.7	26.1	20.7	19.2	17.4	16.2	15.9	16.2
75°	93.6	43.8	24.9	24.6	20.4	17.1	17.1	16.2	15.0	14.4	14.4
77.5°	36.0	25.2	18.6	18.9	16.5	14.7	14.7	14.1	13.2	12.6	12.6
80°	24.0	18.0	14.4	14.1	12.3	11.1	12.0	11.7	10.8	10.2	9.9
82.5°	14.4	12.3	10.8	9.6	9.0	7.5	8.7	8.1	7.8	6.9	6.6
85°	7.8	7.2	6.6	6.0	5.4	3.6	4.8	4.8	4.8	4.5	3.9
87.5°	1.8	2.7	2.7	2.7	2.1	1.2	2.1	2.4	2.4	2.4	1.5
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)