

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: P596036

Luminaire Tested: **MSA-SA1A-AMB-U-SL2**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596036
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-SA1A-AMB-U-SL2
Description: POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE II SPILL LIGHT ELIMINATOR OPTICS.
Light Source: (16) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 882.1 lumens
Efficiency: N/A
Efficacy: 43.0 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

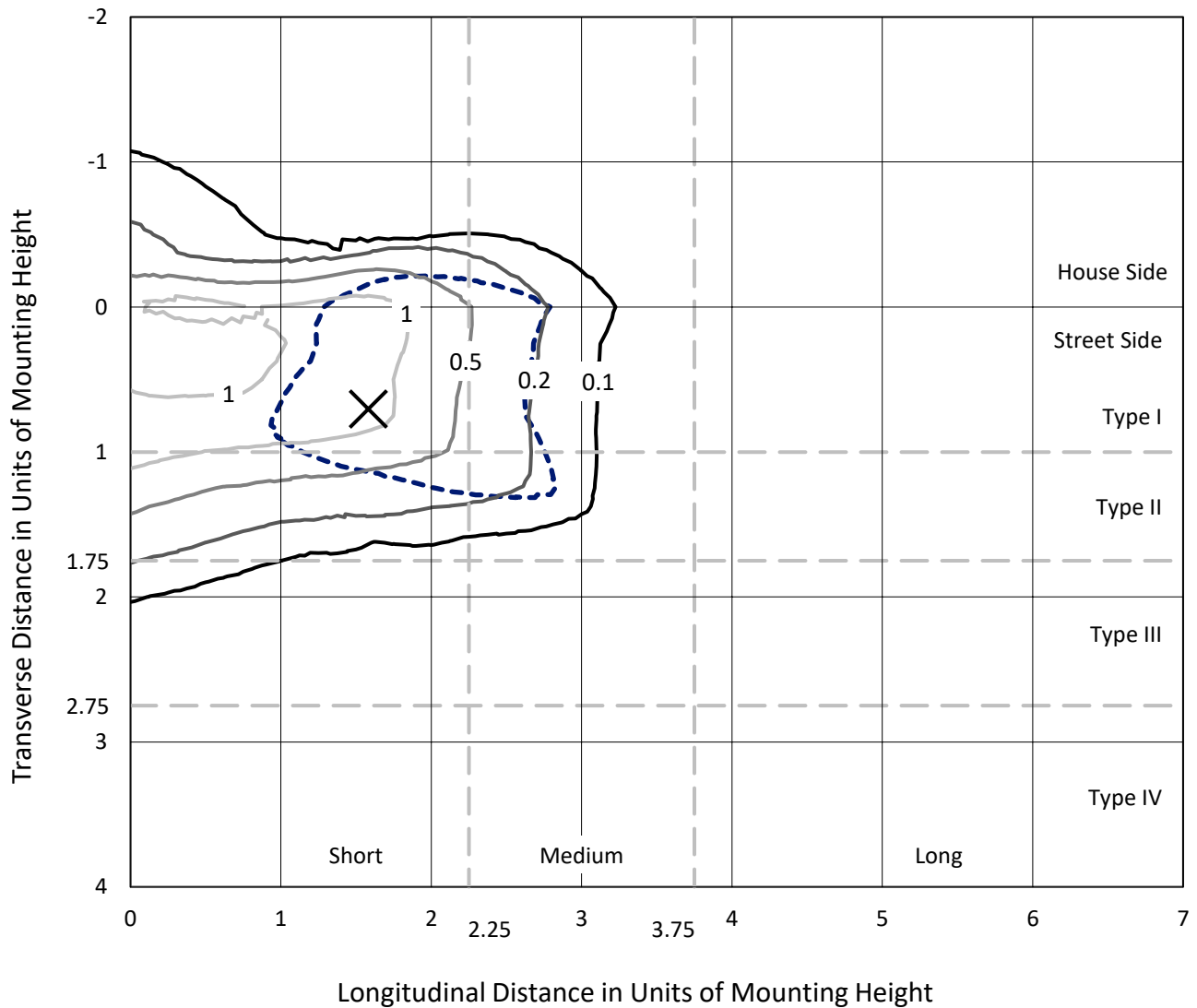
Input Watts (W): 20.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

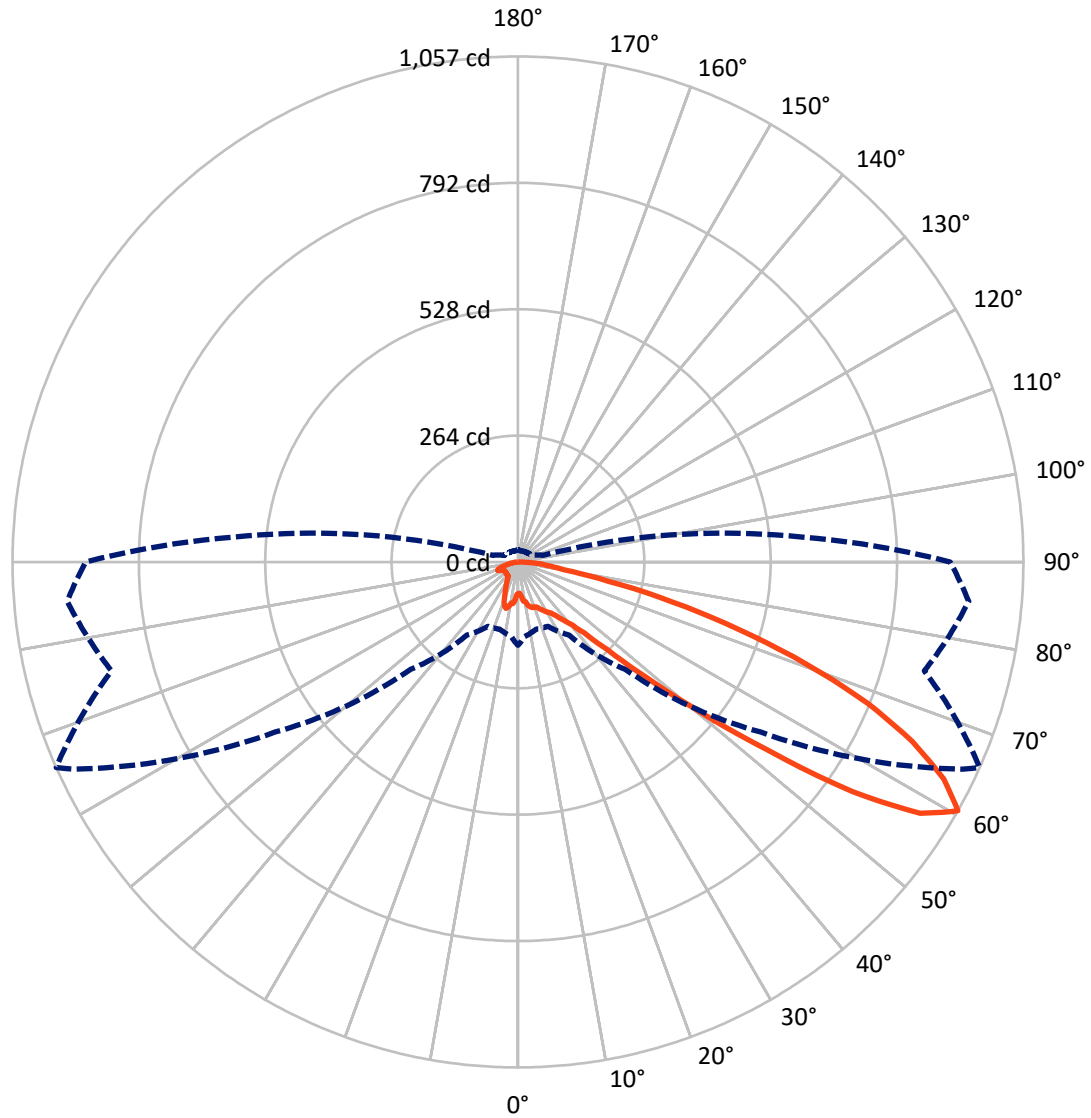
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.6 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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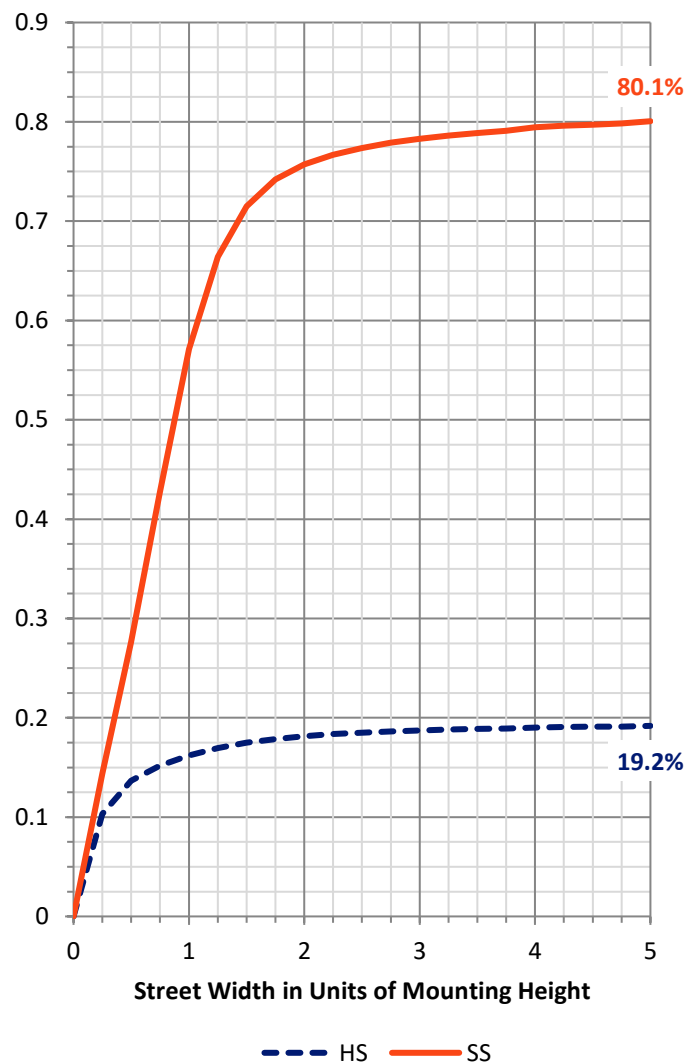
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	171.4	0.0	171.4
	% Fixture	19.4	0.0	19.4
Street Side	Lumens	710.7	0.0	710.7
	% Fixture	80.6	0.0	80.6
Total	Lumens	882.1	0.0	882.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.2	0.8
10°-20°	23.1	2.6
20°-30°	39.2	4.4
30°-40°	71.1	8.1
40°-50°	144.1	16.3
50°-60°	247.7	28.1
60°-70°	235.9	26.7
70°-80°	97.0	11.0
80°-90°	16.8	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°	882.1	100.0
0°-180°	882.1	100.0

Coefficient of Utilization



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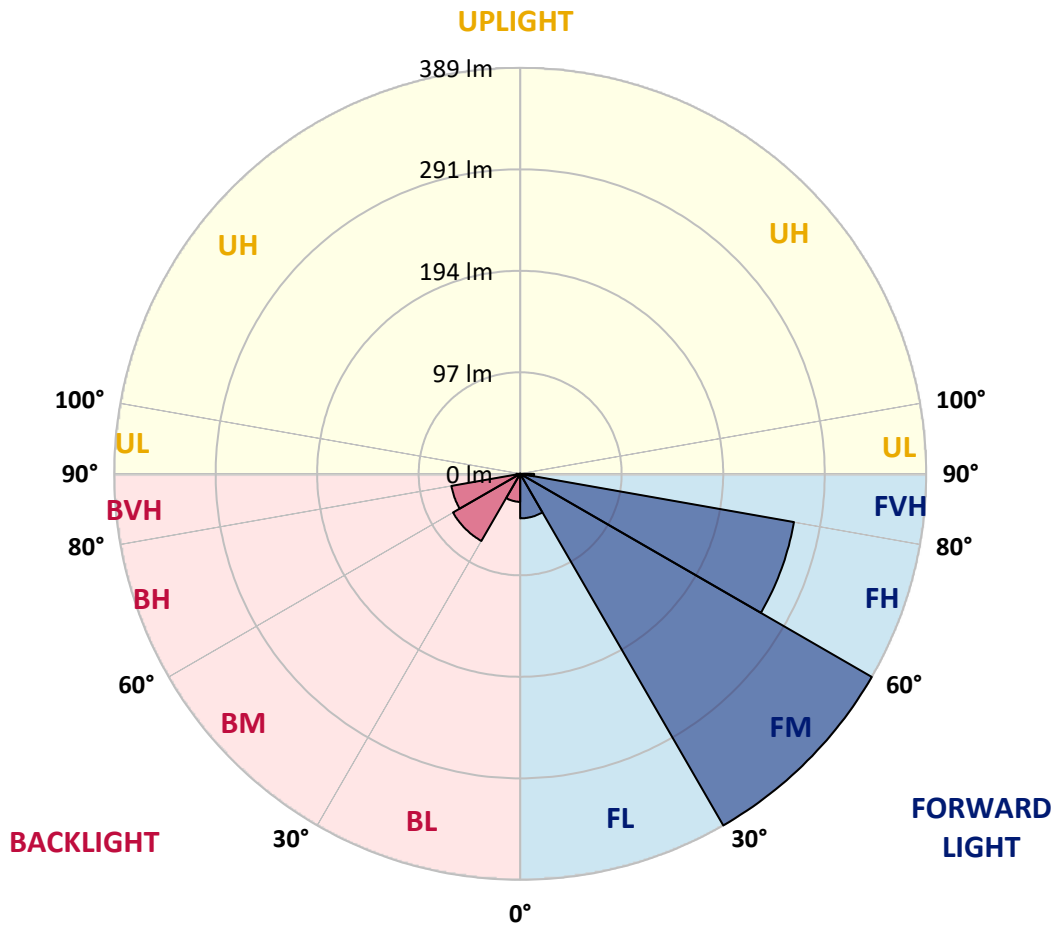
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	42.7	4.8			
FM (30°-60°)	388.6	44.1			
FH (60°-80°)	266.1	30.2			G0/660
FVH (80°-90°)	13.3	1.5			G1/100
BL (0°-30°)	26.8	3.0	B0/110		
BM (30°-60°)	74.2	8.4	B0/220		
BH (60°-80°)	66.8	7.6	B0/110		G0/110
BVH (80°-90°)	3.5	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°	65°	66°	75°	85°
0°	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
2.5°	74.0	65.3	62.6	58.4	59.6	63.2	63.2	64.1	65.3	70.1	75.8
5°	79.4	70.1	70.7	62.9	56.3	55.7	60.2	70.1	71.6	89.3	90.8
7.5°	79.7	73.4	73.1	65.9	57.5	58.7	68.6	82.4	82.4	94.1	104.6
10°	71.3	69.5	67.1	62.9	65.0	69.8	72.2	81.8	83.9	100.4	106.4
12.5°	66.2	65.9	70.4	68.6	75.2	80.9	83.0	92.9	92.9	104.0	113.9
15°	71.6	71.9	72.5	74.3	77.9	85.1	89.6	96.5	97.7	113.6	122.0
17.5°	80.0	81.2	80.0	81.8	83.0	87.5	92.9	99.5	100.4	120.8	137.5
20°	90.2	90.2	87.2	82.7	87.5	89.6	95.6	100.7	100.1	123.8	145.9
22.5°	103.4	101.6	92.9	87.8	87.8	89.6	95.3	101.9	102.5	124.1	158.5
25°	114.2	113.0	104.9	100.1	95.3	94.4	98.0	107.9	109.1	130.9	162.1
27.5°	130.6	128.9	114.5	111.5	103.4	95.9	101.9	115.1	115.7	131.8	169.6
30°	151.0	152.5	134.2	130.0	118.1	102.8	111.2	120.2	121.7	137.2	180.7
32.5°	182.5	182.2	163.3	148.9	135.7	121.1	115.4	124.7	127.4	148.3	192.7
35°	226.2	223.5	203.2	186.7	161.2	134.5	130.3	137.8	138.4	160.0	199.0
37.5°	275.4	268.2	247.5	235.8	211.9	167.2	153.1	154.0	154.3	170.5	216.6
40°	310.7	301.5	277.2	273.9	252.9	215.2	172.0	170.8	170.8	183.4	233.1
42.5°	342.2	332.3	306.2	313.7	301.8	272.7	210.4	200.2	201.4	202.6	267.0
45°	360.8	337.7	327.5	338.0	346.4	330.8	288.9	267.3	261.3	251.7	314.0
47.5°	340.7	320.9	312.5	336.2	374.3	424.0	400.6	370.1	358.1	329.3	374.3
50°	316.7	295.2	284.1	296.7	384.2	470.5	508.8	504.9	489.0	421.0	456.1
52.5°	295.5	270.9	251.4	264.6	347.9	477.3	608.9	658.9	652.9	534.3	574.4
55°	263.1	234.9	216.3	221.7	301.8	444.4	676.0	842.9	847.7	676.9	723.1
57.5°	217.2	195.4	181.9	184.0	237.3	385.7	666.7	989.5	991.3	802.5	867.2
60°	174.4	156.7	145.6	148.3	186.1	317.0	619.7	1024.8	1056.6	879.5	945.7
62.5°	130.3	117.8	111.2	112.7	141.4	249.3	539.4	977.2	999.3	876.5	941.8
65°	102.8	92.6	87.8	91.7	107.0	197.8	439.3	888.2	906.2	802.8	852.8
67.5°	83.9	76.1	71.0	80.3	92.9	122.3	353.0	791.1	789.0	649.0	680.5
70°	68.9	62.6	59.0	68.9	88.7	98.3	242.4	642.8	641.0	484.8	474.4
72.5°	51.2	47.3	47.0	57.5	84.8	94.7	132.7	483.3	483.0	378.8	341.6
75°	36.3	34.5	34.2	44.9	77.6	96.8	95.3	330.5	333.8	298.2	254.1
77.5°	28.2	26.1	25.2	30.6	64.4	93.8	85.4	190.0	192.4	171.1	127.1
80°	20.7	20.1	19.5	22.2	38.7	92.3	80.3	102.2	97.4	66.2	42.0
82.5°	11.1	11.1	13.5	15.9	24.9	78.5	77.3	69.2	63.2	21.9	21.3
85°	5.1	5.4	7.2	9.9	14.7	52.1	69.5	52.7	46.4	12.9	12.6
87.5°	0.9	1.5	1.8	2.7	3.6	12.3	20.7	18.9	16.2	4.5	3.3
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°	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
2.5°	81.2	71.3	74.6	67.1	65.6	68.9	67.1	67.4	70.4	70.7	78.8
5°	101.3	91.4	87.8	80.0	69.2	62.0	65.3	73.1	80.3	81.8	88.1
7.5°	112.4	104.0	101.9	86.0	70.4	66.2	66.5	70.7	74.6	77.3	82.1
10°	109.7	107.0	101.9	85.7	81.2	75.5	66.5	60.5	62.0	61.1	61.7
12.5°	118.7	115.1	107.9	95.0	86.3	74.6	63.5	56.6	51.5	49.7	49.7
15°	124.4	124.1	114.5	98.6	82.1	65.6	54.2	47.0	42.6	40.5	39.3
17.5°	136.9	137.5	116.6	94.1	68.9	55.1	44.0	37.5	36.3	36.9	36.6
20°	147.7	143.5	116.3	82.4	57.2	42.9	34.5	32.4	33.6	35.1	35.4
22.5°	159.7	146.2	109.1	68.0	44.9	33.0	30.6	30.0	31.8	34.5	35.1
25°	163.6	151.0	102.2	57.2	36.3	28.2	27.9	28.5	30.6	33.6	33.9
27.5°	170.8	149.8	92.3	49.1	29.7	26.4	27.0	27.9	28.8	31.5	32.1
30°	172.0	158.8	82.7	42.9	27.6	25.8	26.1	26.7	27.9	30.3	30.9
32.5°	183.7	153.1	77.3	36.0	26.7	25.8	25.8	26.4	27.9	29.7	30.3
35°	186.1	158.8	71.6	32.1	26.7	25.5	25.5	26.1	27.9	30.0	30.3
37.5°	203.5	164.8	69.2	31.5	26.7	25.8	25.5	26.4	28.2	30.6	31.5
40°	221.4	175.3	68.9	31.2	27.0	26.1	26.1	26.7	28.8	31.2	32.4
42.5°	253.2	199.0	68.3	31.2	27.3	26.7	26.4	27.3	29.1	31.2	32.4
45°	291.3	215.5	64.4	30.9	27.3	27.6	27.0	27.6	28.8	30.9	32.4
47.5°	341.9	236.4	60.8	30.6	27.9	28.8	27.6	27.6	28.5	30.3	31.2
50°	413.2	274.8	59.0	30.6	28.8	29.4	27.9	27.3	27.9	29.1	30.3
52.5°	515.4	337.7	57.5	30.9	29.7	29.4	27.9	27.0	27.0	28.2	29.4
55°	663.4	420.1	56.0	30.9	29.7	28.8	27.6	26.7	26.4	27.0	27.9
57.5°	806.4	533.7	54.5	31.5	29.4	28.2	27.0	25.8	25.2	25.8	27.0
60°	903.8	596.6	53.9	32.1	29.7	27.0	26.1	24.9	24.0	24.6	25.8
62.5°	899.0	583.7	55.1	34.8	30.0	25.8	24.9	23.7	22.8	23.4	24.3
65°	824.6	518.4	61.1	38.7	30.9	24.6	23.4	22.5	21.6	21.9	22.8
67.5°	689.2	439.3	67.7	42.9	31.2	23.1	21.9	20.7	20.1	20.7	21.3
70°	521.7	357.2	60.2	42.6	29.1	21.3	20.1	19.5	18.6	18.9	19.5
72.5°	398.5	287.7	46.4	37.8	26.4	19.5	18.9	17.7	16.8	17.1	17.7
75°	269.4	192.1	36.0	29.4	21.9	16.8	17.1	15.9	15.0	15.3	15.6
77.5°	121.1	81.2	25.5	21.3	16.8	14.1	15.0	13.8	12.9	13.2	13.2
80°	36.9	28.2	16.2	15.0	12.9	11.1	12.0	11.4	10.5	10.5	10.8
82.5°	22.5	18.0	10.8	9.9	9.3	7.8	9.0	8.7	7.8	7.8	7.5
85°	12.6	10.5	6.9	6.3	5.4	3.9	5.1	5.1	4.8	4.8	4.5
87.5°	2.7	3.6	3.0	2.7	2.4	1.5	2.4	2.4	2.4	2.1	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)