

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: P596069

Luminaire Tested: **MSA-SA2A-AMB-U-T2-HSS**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596069
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-10)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-AMB-U-T2-HSS
Description: POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: (32) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1285 lumens
Efficiency: N/A
Efficacy: 31.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B0 - U0 - G0

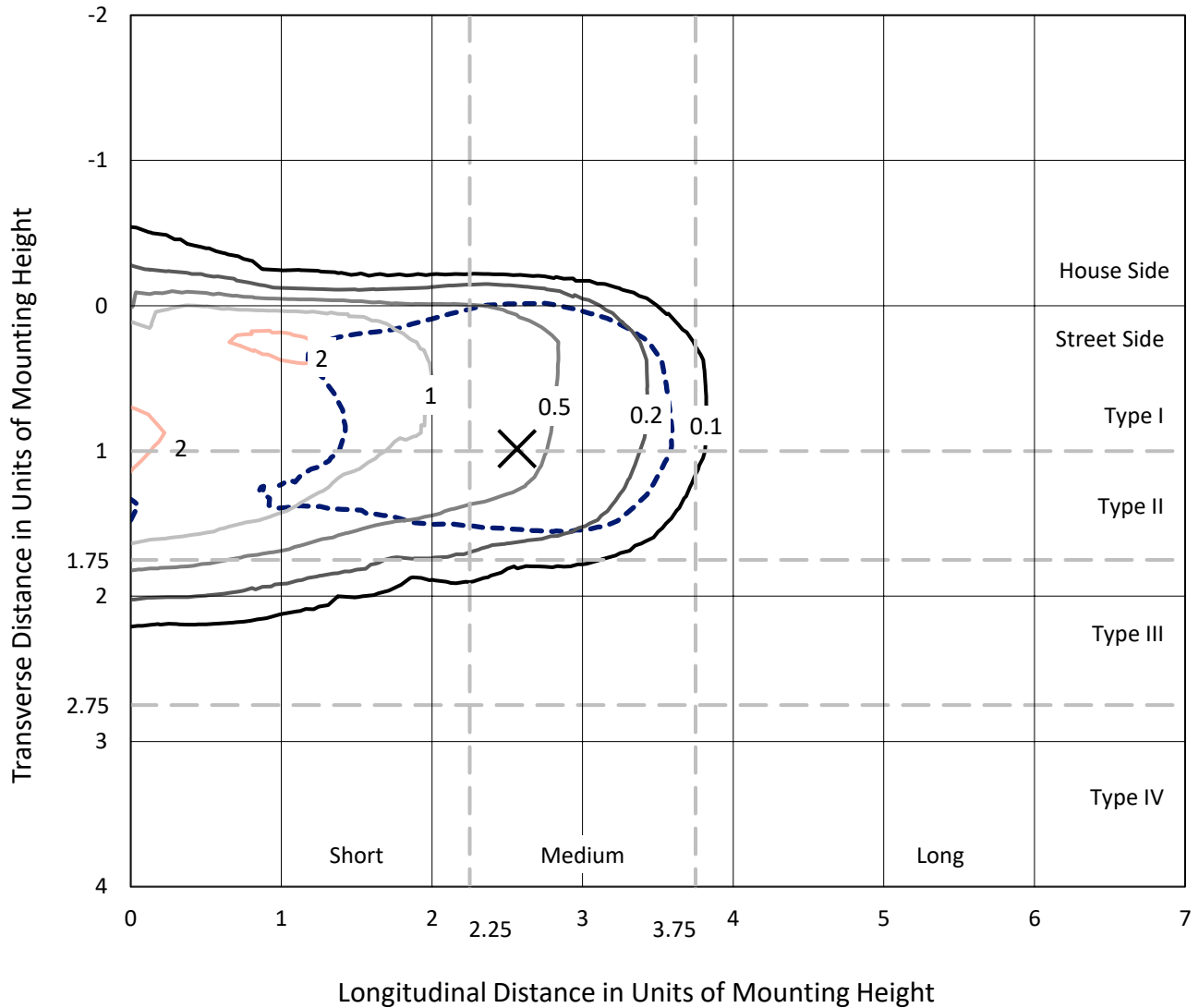
Input Watts (W): 41.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

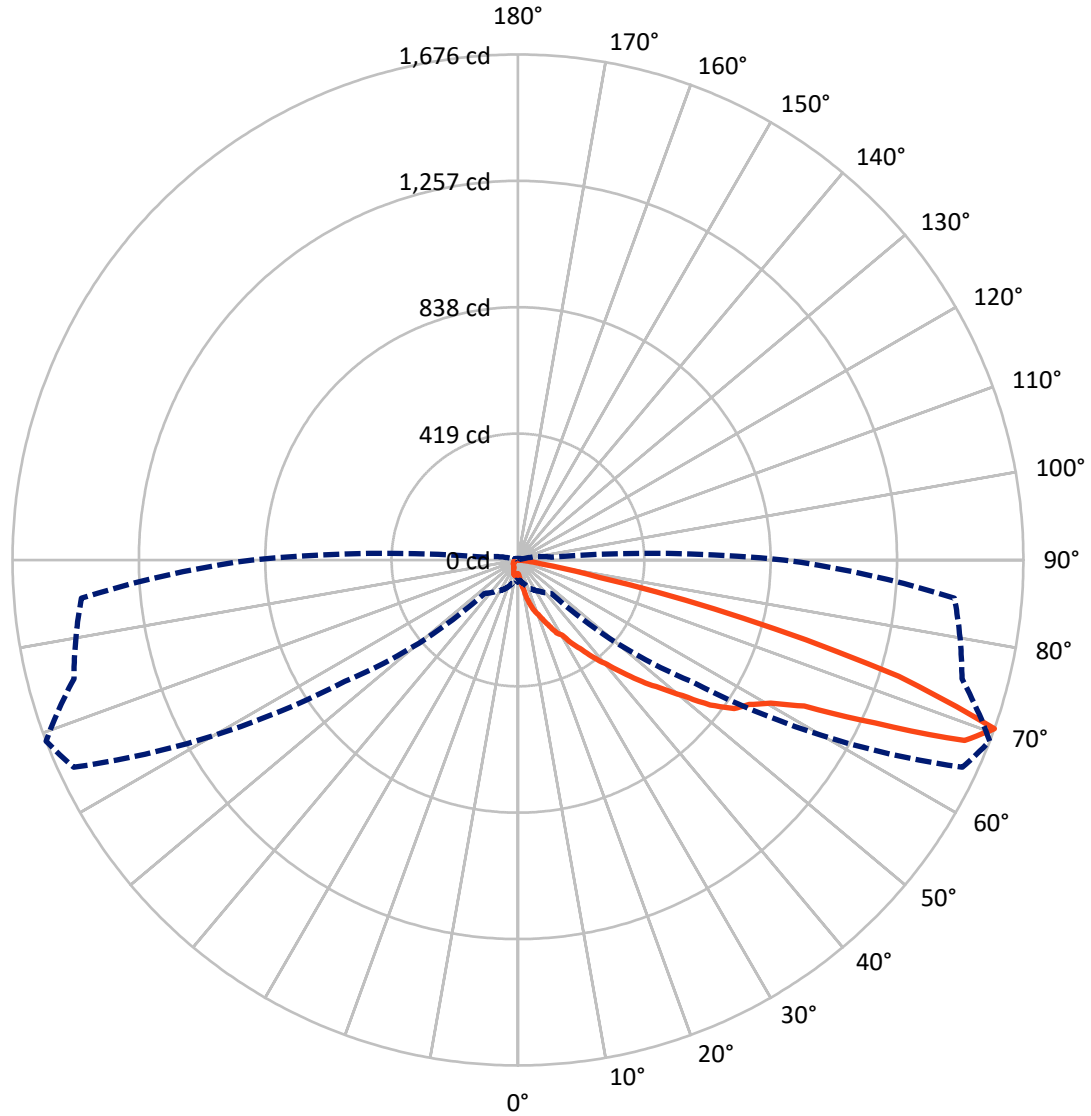
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.3 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 69-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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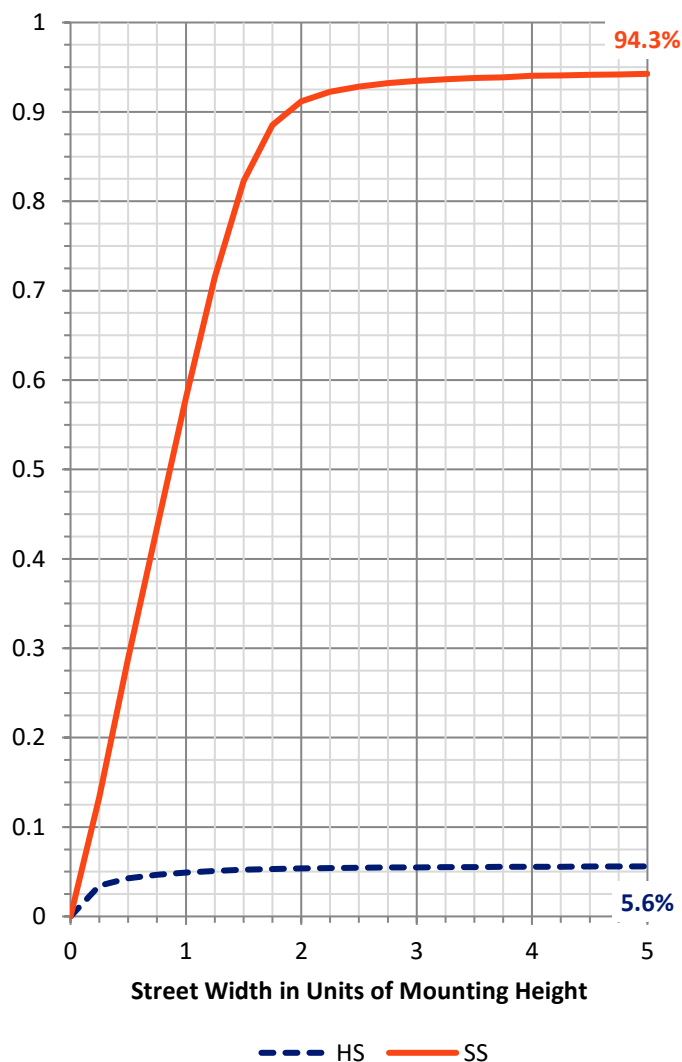
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	72.9	0.0	72.9
	% Fixture	5.7	0.0	5.7
Street Side	Lumens	1212.0	0.0	1212.0
	% Fixture	94.3	0.0	94.3
Total	Lumens	1285.0	0.0	1285.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.8	0.5
10°-20°	24.8	1.9
20°-30°	51.1	4.0
30°-40°	102.9	8.0
40°-50°	203.9	15.9
50°-60°	346.9	27.0
60°-70°	374.3	29.1
70°-80°	167.0	13.0
80°-90°	8.3	0.6
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°	1285.0	100.0
0°-180°	1285.0	100.0

Coefficient of Utilization

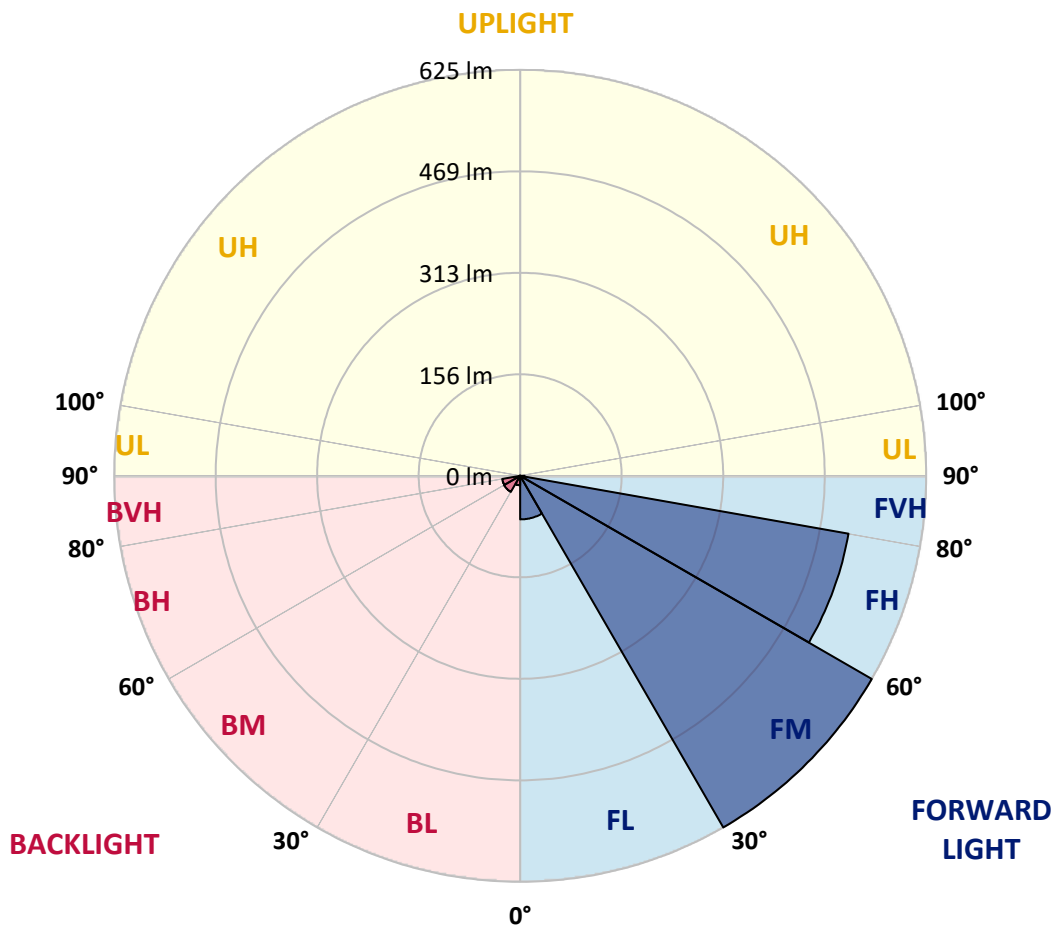


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	67.1	5.2			
FM (30°-60°)	625.0	48.6			
FH (60°-80°)	513.2	39.9			G0/660
FVH (80°-90°)	6.6	0.5			G0/10
BL (0°-30°)	14.5	1.1	B0/110		
BM (30°-60°)	28.7	2.2	B0/220		
BH (60°-80°)	28.1	2.2	B0/110		G0/110
BVH (80°-90°)	1.7	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G0
 Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	69°	75°	85°
0°	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
2.5°	64.3	57.3	54.9	51.9	51.4	53.1	50.8	48.4	49.0	49.0	53.1
5°	89.7	76.7	75.6	68.5	58.4	56.1	54.9	59.0	59.6	69.1	67.9
7.5°	107.4	99.2	100.9	88.0	75.0	68.5	74.4	80.9	80.9	83.2	78.5
10°	109.8	106.8	104.5	97.4	98.6	99.8	98.6	97.4	96.2	100.4	89.1
12.5°	105.7	105.7	114.5	113.9	124.0	133.4	129.9	127.5	127.5	119.2	101.5
15°	112.2	112.2	117.5	124.6	136.4	154.1	157.6	152.9	153.5	148.2	118.6
17.5°	119.2	120.4	122.2	131.0	146.4	168.2	180.0	178.9	177.1	174.7	139.9
20°	127.5	128.7	125.1	125.1	147.6	171.2	194.8	196.0	193.0	195.4	156.4
22.5°	154.7	150.5	136.9	129.9	139.3	165.9	200.7	212.5	216.6	212.5	176.5
25°	180.6	180.0	164.7	152.9	144.6	165.3	206.6	242.6	242.0	245.6	186.5
27.5°	214.9	215.5	190.1	186.5	165.9	161.7	209.6	268.6	273.9	256.8	206.0
30°	253.2	251.5	222.0	217.8	197.2	173.0	218.4	289.8	289.2	286.3	226.1
32.5°	301.1	298.1	258.0	246.7	229.6	208.4	215.5	303.4	330.6	329.4	247.9
35°	355.9	351.2	311.1	287.5	257.4	233.8	239.1	325.3	365.4	370.1	275.7
37.5°	442.1	423.2	375.4	333.5	304.6	283.3	275.1	361.9	412.6	433.9	315.2
40°	508.2	484.6	436.8	383.7	345.3	334.1	307.0	387.2	455.7	499.4	360.7
42.5°	566.1	548.4	494.7	449.8	396.1	369.5	349.5	432.1	510.6	570.2	410.3
45°	609.2	581.4	531.9	502.3	446.3	441.5	417.9	492.3	574.9	654.6	455.7
47.5°	661.7	625.1	581.4	544.8	494.7	518.3	475.2	552.5	632.8	760.9	518.3
50°	733.1	690.6	642.8	585.0	561.4	572.0	531.9	611.0	706.0	867.1	592.1
52.5°	837.6	786.9	737.3	686.5	640.5	603.9	584.4	682.4	798.7	954.5	662.9
55°	857.7	804.0	789.2	783.3	778.0	671.8	636.3	785.1	869.5	1024.8	728.4
57.5°	793.9	742.6	756.8	786.9	854.8	804.0	706.0	859.5	904.3	1083.8	785.1
60°	579.1	550.7	608.6	686.5	835.3	876.0	843.5	925.6	963.4	1104.4	838.2
62.5°	298.1	283.3	350.0	451.6	677.7	874.2	1026.5	1041.9	1066.1	1139.3	955.7
65°	151.1	146.4	179.5	227.3	374.8	717.2	1116.3	1315.2	1302.8	1257.3	1179.4
67.5°	102.7	98.0	116.3	145.8	185.9	392.5	1051.9	1654.6	1597.3	1425.6	1413.8
70°	73.2	67.9	82.6	106.3	126.9	156.4	701.3	1625.7	1675.9	1524.1	1452.7
72.5°	45.5	43.1	57.8	77.9	99.2	77.9	287.5	1237.9	1319.9	1328.2	1158.8
75°	29.5	28.3	35.4	54.9	76.7	56.1	81.5	651.1	772.1	825.2	658.2
77.5°	21.8	20.7	24.8	37.2	50.2	40.1	43.1	253.2	275.1	328.8	234.9
80°	11.2	11.2	17.1	21.8	33.1	26.6	28.9	75.0	78.5	95.0	46.6
82.5°	5.9	5.9	9.4	15.9	20.1	16.5	14.8	30.7	31.9	32.5	16.5
85°	1.2	1.8	5.9	9.4	10.6	7.1	8.3	11.8	13.0	14.2	7.7
87.5°	0.6	1.2	2.4	3.0	3.0	2.4	4.1	4.7	4.7	4.7	4.1
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°	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
2.5°	54.3	47.2	49.0	41.9	40.1	39.5	39.0	39.0	43.7	44.3	47.2
5°	70.8	62.0	57.3	49.0	40.1	35.4	36.6	40.7	43.7	44.9	46.6
7.5°	82.1	71.4	62.6	48.4	37.2	33.1	35.4	36.6	37.8	37.8	39.5
10°	83.8	73.8	59.0	44.3	39.0	35.4	31.3	28.9	29.5	29.5	30.1
12.5°	93.3	78.5	59.6	44.9	39.0	32.5	27.7	25.4	23.6	23.0	23.6
15°	100.9	84.4	59.0	43.7	34.8	27.7	23.0	21.8	22.4	22.4	22.4
17.5°	112.2	92.1	56.7	41.3	30.1	23.6	21.8	22.4	22.4	23.6	23.0
20°	121.6	92.1	53.1	35.4	24.8	21.3	21.3	20.7	21.3	21.3	21.3
22.5°	132.2	92.1	47.2	30.1	21.8	20.1	18.9	18.3	18.3	18.3	18.9
25°	133.4	86.2	43.1	26.6	20.7	18.3	17.1	15.9	15.9	16.5	16.5
27.5°	137.5	80.3	38.4	23.6	20.1	16.5	15.3	14.8	14.2	14.8	14.8
30°	137.5	77.3	35.4	22.4	18.9	15.3	14.2	13.6	13.0	13.6	13.6
32.5°	137.5	69.7	32.5	21.8	17.7	14.2	13.0	12.4	12.4	13.0	13.0
35°	137.5	64.3	30.1	20.7	16.5	13.6	12.4	11.8	11.8	12.4	12.4
37.5°	152.3	62.0	28.3	20.7	15.9	13.6	12.4	11.8	11.8	12.4	12.4
40°	159.4	62.6	26.0	19.5	15.3	13.6	12.4	11.8	11.2	11.8	11.8
42.5°	172.4	62.0	25.4	18.9	14.8	13.0	11.8	11.2	11.2	11.2	11.2
45°	194.8	62.0	24.8	18.3	14.8	13.0	11.8	11.2	10.6	10.6	11.2
47.5°	219.0	65.5	24.2	17.1	14.2	13.0	11.2	10.6	10.0	10.6	10.6
50°	251.5	67.9	23.6	16.5	14.2	13.0	11.2	10.0	10.0	10.0	10.0
52.5°	292.2	70.2	22.4	15.9	14.2	12.4	10.6	10.0	9.4	10.0	10.0
55°	336.5	72.0	21.8	15.3	14.2	11.8	10.6	9.4	9.4	9.4	9.4
57.5°	382.5	72.6	21.3	14.8	13.0	11.8	10.0	9.4	8.9	8.9	8.9
60°	439.8	73.2	19.5	14.2	12.4	10.6	9.4	8.9	8.3	8.3	7.7
62.5°	530.1	78.5	17.7	13.6	11.2	10.0	8.9	7.7	7.7	7.1	6.5
65°	698.9	88.5	15.3	12.4	10.6	8.9	7.7	7.1	6.5	5.9	5.3
67.5°	867.1	108.0	13.6	11.2	9.4	8.3	7.1	6.5	5.3	5.3	4.1
70°	881.9	111.0	11.8	10.0	8.3	7.7	6.5	5.9	5.3	4.7	4.1
72.5°	675.9	74.4	10.6	9.4	7.7	5.9	5.9	5.9	5.3	4.7	4.1
75°	355.4	33.6	9.4	8.3	6.5	5.3	5.9	5.3	4.7	4.1	3.0
77.5°	105.1	15.3	7.7	7.1	5.9	4.1	4.7	4.1	4.1	3.0	1.8
80°	20.7	8.3	5.9	5.9	4.7	2.4	3.5	4.1	3.5	3.0	1.8
82.5°	7.7	5.3	4.7	4.1	3.5	1.8	3.5	3.5	3.5	3.5	2.4
85°	3.5	3.5	4.1	3.5	3.0	1.2	3.0	3.5	3.5	3.5	2.4
87.5°	2.4	3.5	3.5	3.5	3.0	1.8	3.0	3.5	3.5	3.5	1.8
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)