

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: P596035

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

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596035
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-18)
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-HSS
Description: POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: (16) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 696 lumens
Efficiency: N/A
Efficacy: 34.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B0 - U0 - G0

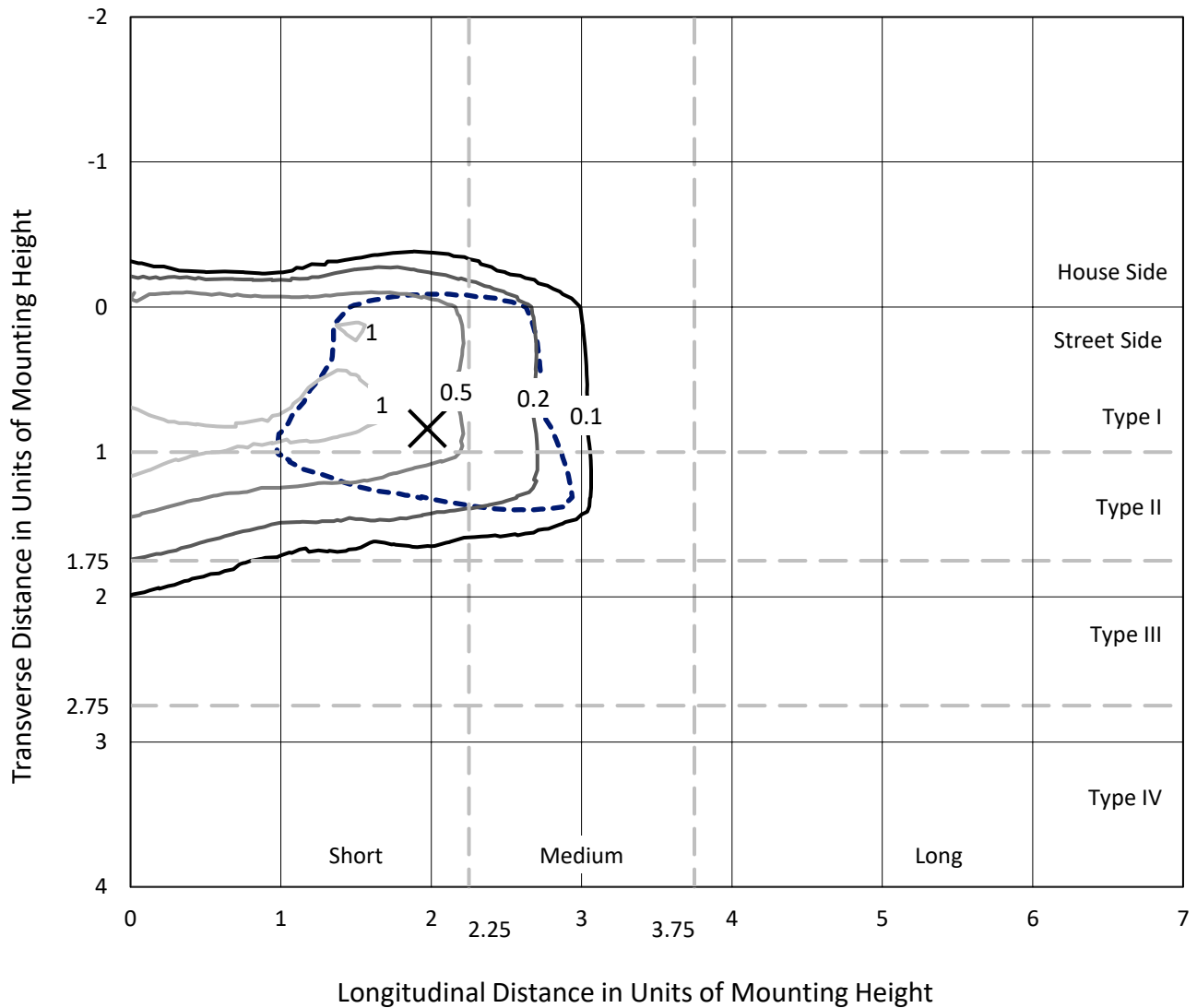
Input Watts (W): 20.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

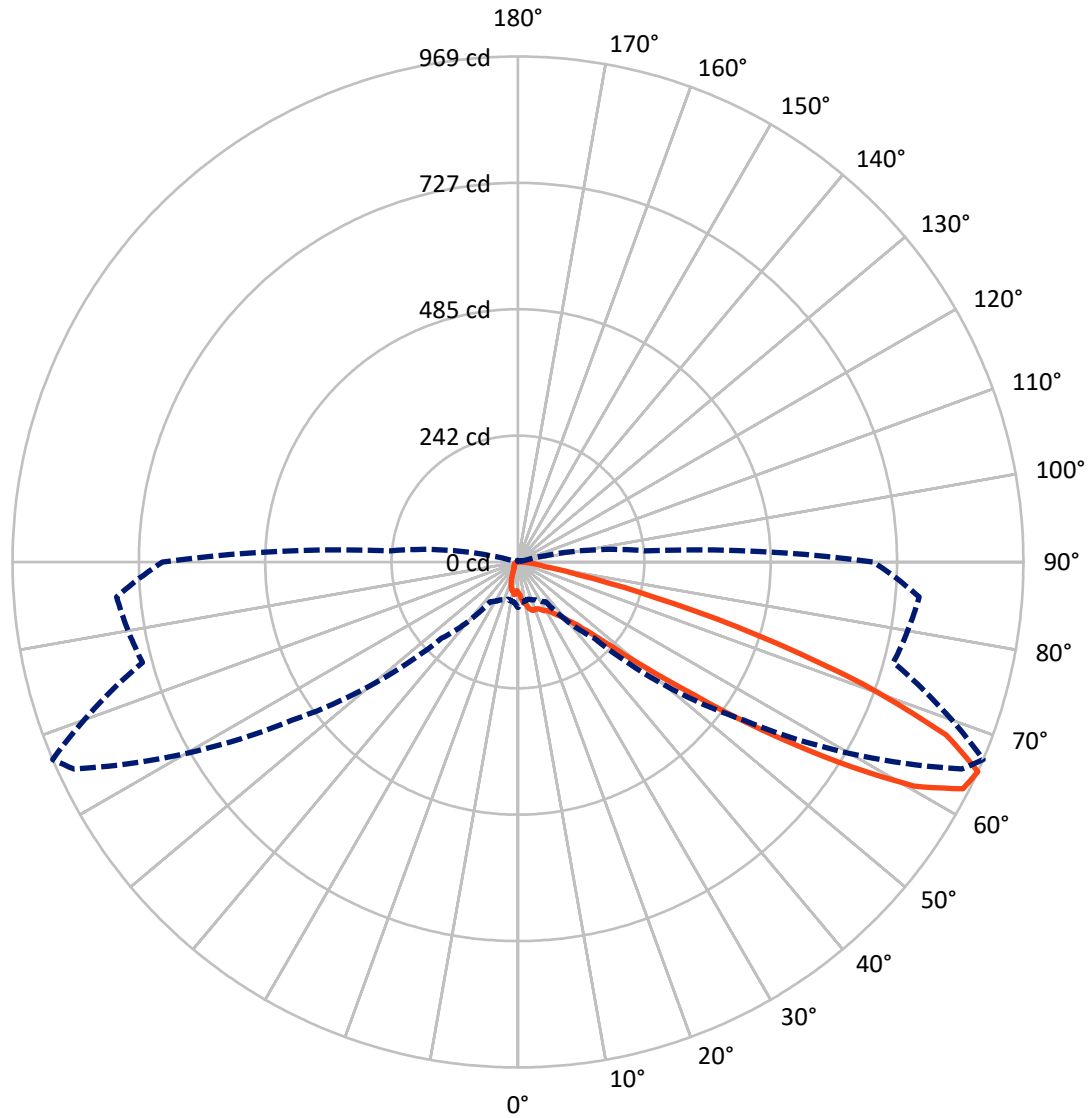
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.2 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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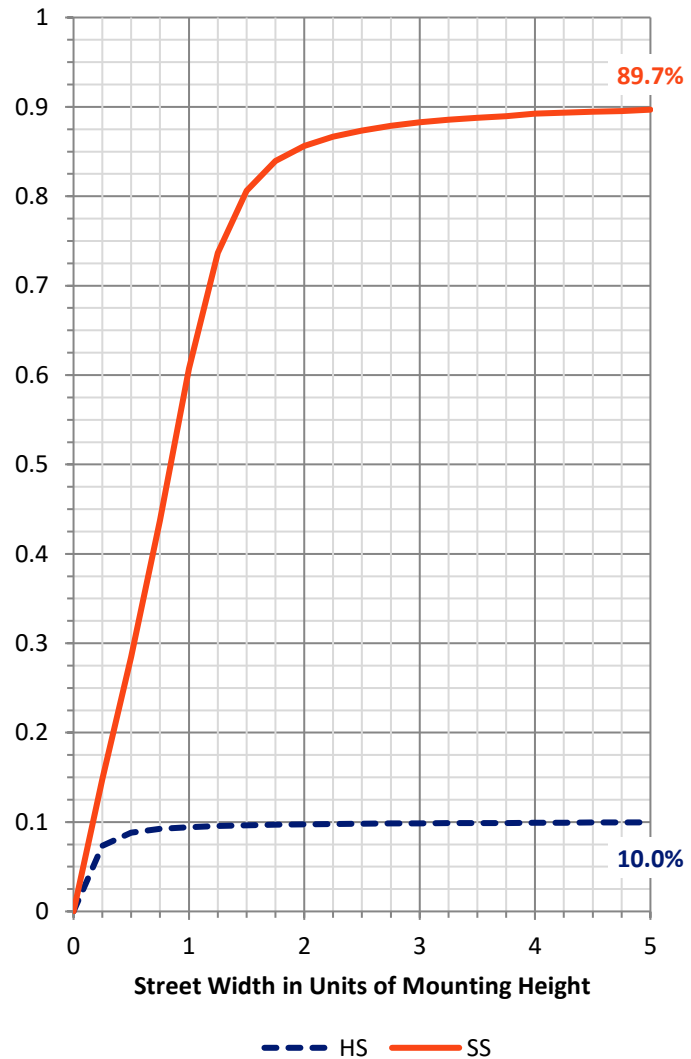
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	70.2	0.0	70.2
	% Fixture	10.1	0.0	10.1
Street Side	Lumens	625.8	0.0	625.8
	% Fixture	89.9	0.0	89.9
Total	Lumens	696.0	0.0	696.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.8	0.8
10°-20°	16.9	2.4
20°-30°	29.4	4.2
30°-40°	52.6	7.6
40°-50°	110.7	15.9
50°-60°	200.9	28.9
60°-70°	206.0	29.6
70°-80°	66.1	9.5
80°-90°	7.7	1.1
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°	696.0	100.0
0°-180°	696.0	100.0

Coefficient of Utilization



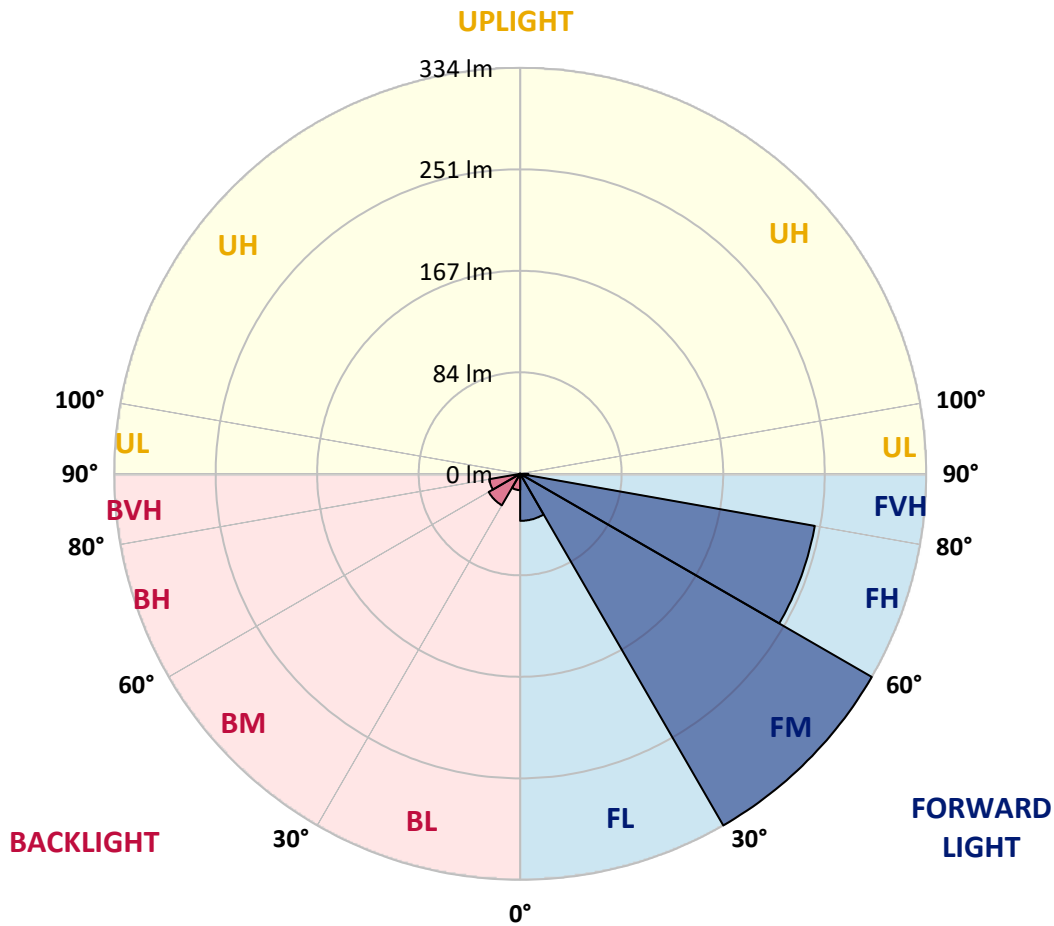
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	38.7	5.6			
FM (30°-60°)	334.2	48.0			
FH (60°-80°)	246.2	35.4			G0/660
FVH (80°-90°)	6.7	1.0			G0/10
BL (0°-30°)	13.4	1.9	B0/110		
BM (30°-60°)	29.9	4.3	B0/220		
BH (60°-80°)	25.9	3.7	B0/110		G0/110
BVH (80°-90°)	1.0	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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2
2.5°	74.9	64.4	60.8	58.2	57.9	63.8	63.5	61.1	62.3	62.9	66.2
5°	80.6	70.1	71.6	64.1	58.2	57.3	60.2	70.7	71.3	80.0	80.9
7.5°	80.6	73.7	74.6	66.8	58.7	58.7	66.8	80.3	79.4	89.3	90.8
10°	71.6	68.9	68.3	63.2	63.5	70.1	70.7	79.1	80.9	92.9	92.9
12.5°	64.7	64.7	68.9	67.1	71.3	77.3	80.6	89.3	90.5	99.5	99.8
15°	67.4	67.7	68.3	70.1	73.4	80.9	85.4	94.4	95.3	108.2	106.1
17.5°	74.3	75.2	74.0	75.5	77.6	82.4	87.5	95.3	97.7	116.3	119.3
20°	81.2	81.8	79.4	74.6	80.6	82.7	89.0	93.5	95.6	118.7	128.3
22.5°	92.0	89.6	82.7	78.8	79.7	81.8	87.5	93.8	97.4	117.8	138.8
25°	100.1	98.6	92.3	87.5	83.9	85.4	89.3	98.9	100.7	123.8	141.5
27.5°	112.1	110.0	97.4	98.0	90.5	85.1	92.0	104.0	105.5	121.7	146.6
30°	127.1	128.9	112.1	111.2	102.2	89.9	98.9	106.7	108.2	123.8	152.6
32.5°	154.4	152.6	136.1	123.5	115.1	105.8	100.4	109.7	113.3	132.8	163.1
35°	177.4	176.2	158.0	150.2	129.2	113.0	113.9	118.4	122.6	142.1	168.5
37.5°	222.1	213.1	190.0	176.2	159.2	135.8	131.0	131.3	130.7	151.1	184.6
40°	264.1	254.8	228.4	212.8	183.7	163.4	144.5	144.2	146.3	163.4	196.3
42.5°	316.8	303.9	275.2	265.9	228.1	184.6	163.1	163.1	163.1	181.6	217.0
45°	350.7	329.4	311.1	312.6	289.0	239.2	202.9	197.8	192.1	206.8	251.5
47.5°	372.9	350.1	332.1	338.4	344.7	326.7	257.5	252.1	241.6	253.9	290.8
50°	362.4	343.2	327.0	335.1	387.6	410.3	342.6	330.0	318.3	313.5	344.1
52.5°	333.9	307.2	284.8	308.4	395.4	464.6	470.3	427.4	423.5	395.4	423.5
55°	277.3	253.6	236.2	254.2	360.6	487.7	594.4	603.7	570.1	507.5	539.8
57.5°	220.6	201.4	185.5	191.8	275.8	475.4	675.3	778.7	722.7	607.0	662.4
60°	164.0	147.2	138.8	145.1	195.7	387.9	695.1	905.8	872.6	689.7	742.5
62.5°	119.6	106.1	98.9	99.2	133.1	282.4	656.4	950.2	957.7	744.6	794.6
65°	87.5	77.6	74.0	80.3	93.2	207.1	528.7	939.1	969.1	745.2	772.4
67.5°	65.9	59.3	55.5	67.4	81.8	111.8	394.2	904.6	885.4	672.3	640.0
70°	51.6	46.5	44.1	55.5	78.2	87.2	241.3	741.3	701.7	514.4	459.2
72.5°	32.1	28.2	32.4	45.3	74.0	81.2	126.5	506.3	479.3	342.6	265.6
75°	17.1	15.6	18.9	31.2	64.7	79.1	80.0	297.6	269.8	182.8	121.1
77.5°	10.2	9.9	10.8	17.7	46.5	72.5	68.3	139.7	119.3	66.5	44.1
80°	5.4	4.8	6.6	10.5	24.0	68.0	59.0	68.3	51.3	18.6	14.7
82.5°	2.1	2.1	3.6	7.2	12.9	43.2	51.3	44.4	32.4	7.5	9.6
85°	0.6	0.9	2.1	4.2	6.3	17.4	38.7	28.5	21.0	4.2	6.0
87.5°	0.6	0.6	1.2	1.5	1.8	2.1	6.6	4.8	4.5	2.1	2.7
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°	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2
2.5°	68.9	59.0	61.4	52.8	51.3	52.2	50.4	49.8	52.8	54.3	57.3
5°	85.4	74.9	70.1	59.6	49.5	41.7	42.3	46.8	48.9	50.1	53.1
7.5°	93.8	83.9	76.7	59.0	43.2	35.4	35.1	36.0	36.6	36.9	38.1
10°	92.3	84.8	71.9	52.8	42.0	34.2	27.9	25.2	24.0	23.4	23.1
12.5°	96.8	86.3	71.6	50.4	36.0	26.7	19.8	15.9	13.5	12.9	13.2
15°	99.8	92.6	71.6	45.9	28.5	19.5	13.8	12.0	11.7	12.0	12.0
17.5°	109.7	101.9	67.1	39.0	21.9	13.8	12.0	11.7	11.7	12.0	11.7
20°	118.1	105.2	64.4	30.6	16.2	12.3	11.4	10.8	10.8	11.1	10.8
22.5°	128.0	106.7	57.0	23.7	12.6	11.1	10.2	9.6	9.6	9.9	10.2
25°	131.0	108.2	48.9	18.6	11.1	9.9	9.3	8.7	8.4	8.7	8.7
27.5°	134.9	105.5	39.9	14.7	10.5	9.0	8.4	7.8	7.2	7.5	7.5
30°	134.0	109.7	33.0	12.0	9.9	8.4	7.5	6.9	6.3	6.6	6.6
32.5°	142.1	104.0	27.6	11.4	9.3	7.8	6.9	6.3	6.0	6.3	6.3
35°	144.2	104.0	24.3	10.8	9.0	7.2	6.3	5.7	5.4	5.7	5.7
37.5°	153.8	102.5	20.7	10.5	8.4	6.9	6.0	5.4	5.1	5.4	5.4
40°	165.2	102.2	17.4	9.9	7.8	6.6	5.4	5.1	4.8	4.8	5.1
42.5°	182.5	109.1	15.3	9.6	7.2	6.0	5.1	4.8	4.5	4.5	4.5
45°	207.1	113.6	13.8	9.3	6.9	5.7	4.8	4.5	4.2	4.2	4.2
47.5°	233.8	116.9	13.2	8.7	6.6	5.4	4.5	4.2	3.9	3.9	3.9
50°	272.8	126.8	12.6	8.1	6.3	5.4	4.5	3.9	3.6	3.3	3.3
52.5°	342.3	145.7	11.7	7.5	6.0	5.1	4.2	3.6	3.3	3.3	3.3
55°	448.1	193.9	11.1	6.9	5.7	4.8	3.9	3.3	3.0	3.0	3.0
57.5°	559.9	237.4	10.2	6.6	5.1	4.2	3.6	3.3	3.0	2.7	2.7
60°	650.1	268.6	9.3	5.7	4.8	3.9	3.3	3.0	2.7	2.7	2.4
62.5°	702.9	271.3	8.4	5.4	4.5	3.6	3.0	3.0	2.7	2.4	2.1
65°	681.6	244.6	7.5	4.8	3.9	3.3	3.0	2.7	2.7	2.4	2.1
67.5°	585.4	208.3	6.6	4.5	3.6	3.3	2.7	2.7	2.4	2.4	1.8
70°	422.0	155.3	6.0	4.2	3.6	3.0	2.7	2.7	2.4	2.4	1.8
72.5°	241.9	88.4	5.4	3.9	3.3	2.7	3.0	3.0	2.7	2.4	1.8
75°	115.1	32.1	4.8	3.6	3.0	2.7	3.0	3.0	2.7	2.4	1.8
77.5°	35.4	12.3	4.2	3.3	2.7	2.4	3.0	2.7	2.4	1.8	1.5
80°	12.6	5.4	3.3	2.7	2.4	1.5	2.4	2.4	2.1	1.8	1.2
82.5°	9.0	3.3	2.7	2.4	1.8	0.9	2.1	2.1	2.1	1.8	1.2
85°	5.4	2.1	2.1	2.1	1.8	0.9	1.8	1.8	1.8	1.8	1.2
87.5°	1.5	1.8	2.1	1.8	1.5	0.9	1.8	1.8	1.8	1.8	1.2
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)