

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: P596039

Luminaire Tested: **MSA-SA1A-AMB-U-SL4-HSS**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596039
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-22)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1A-AMB-U-SL4-HSS
Description: POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE IV 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: 691 lumens
Efficiency: N/A
Efficacy: 33.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G0

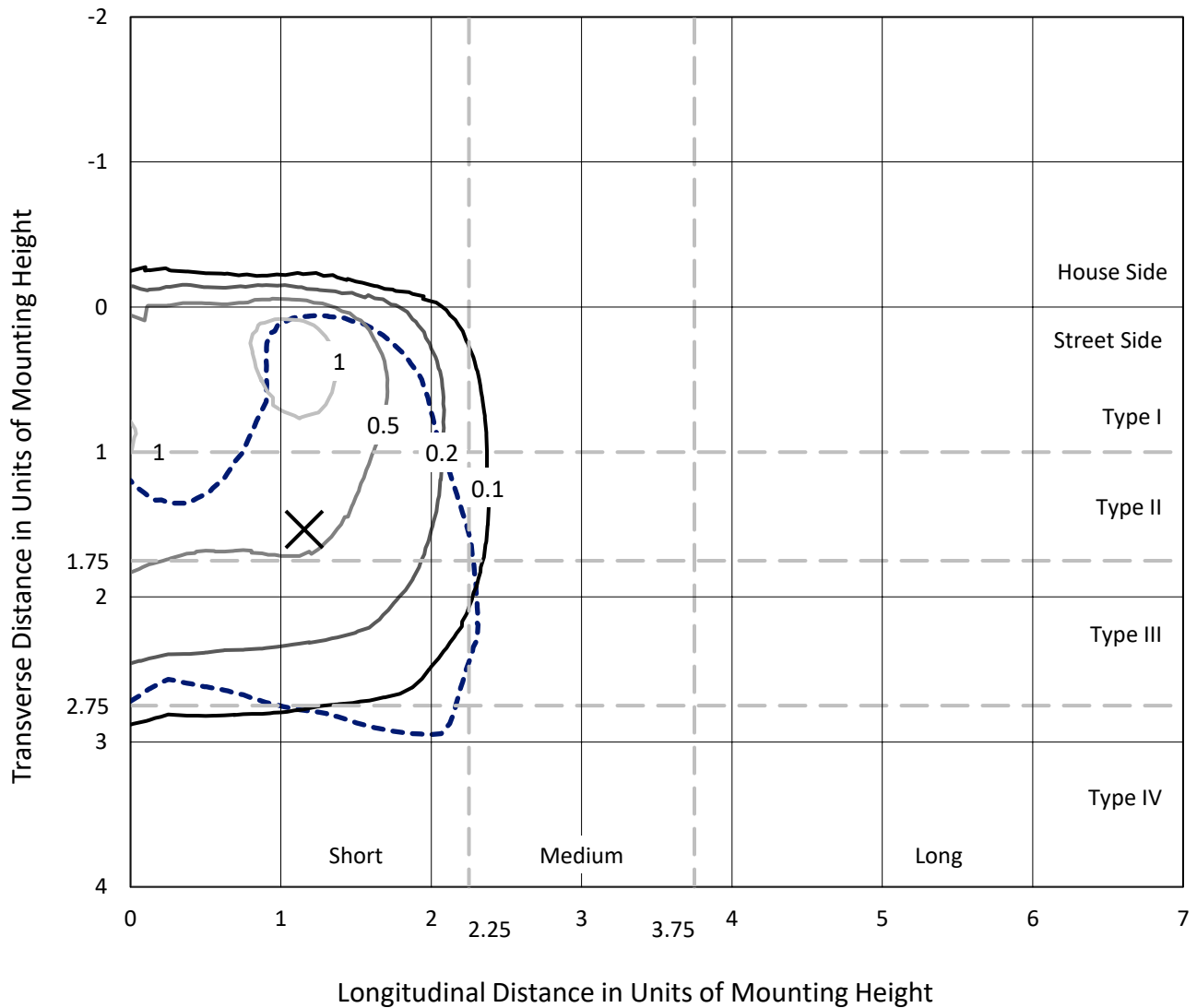
Input Watts (W): 20.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

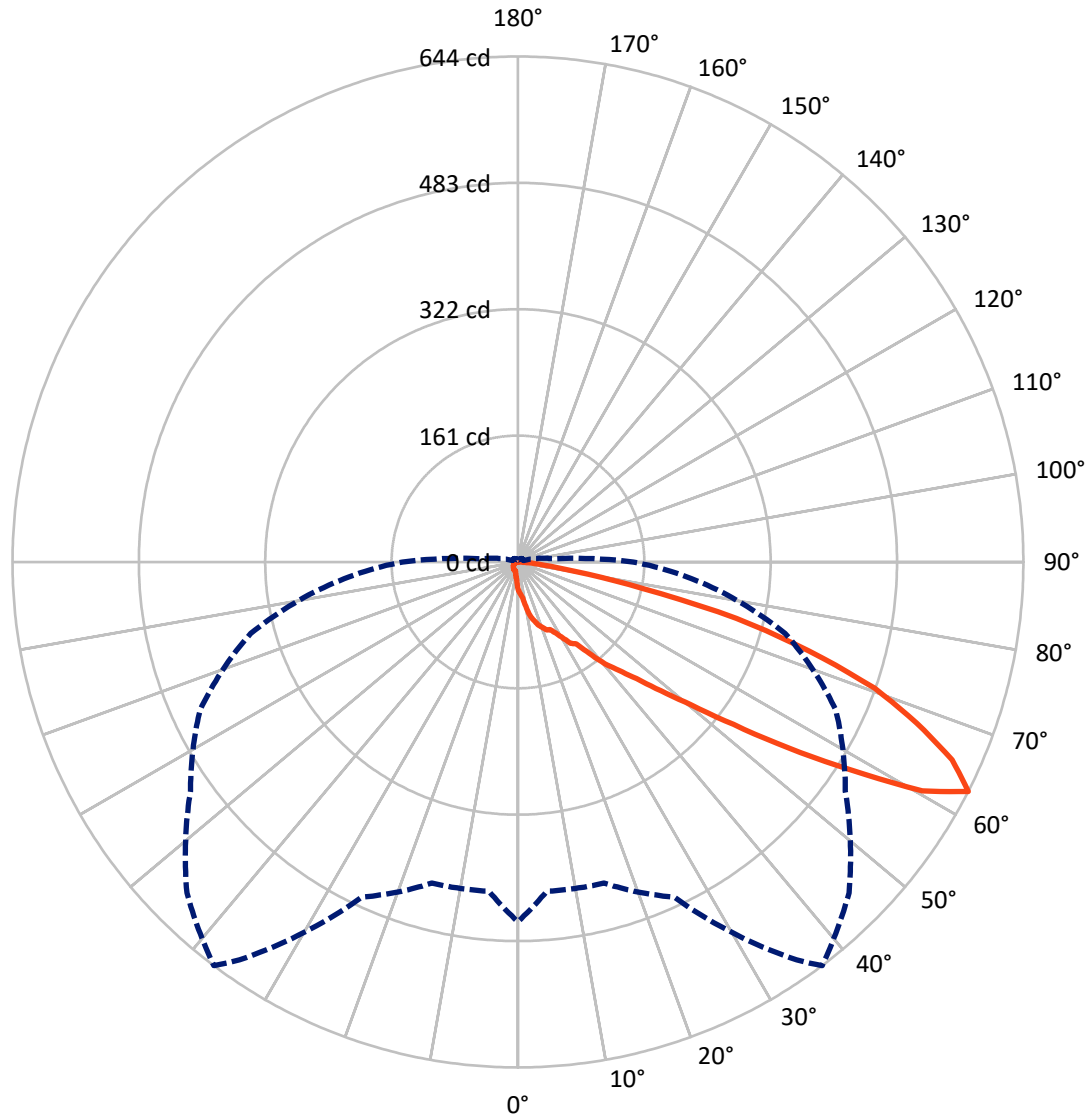
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 37-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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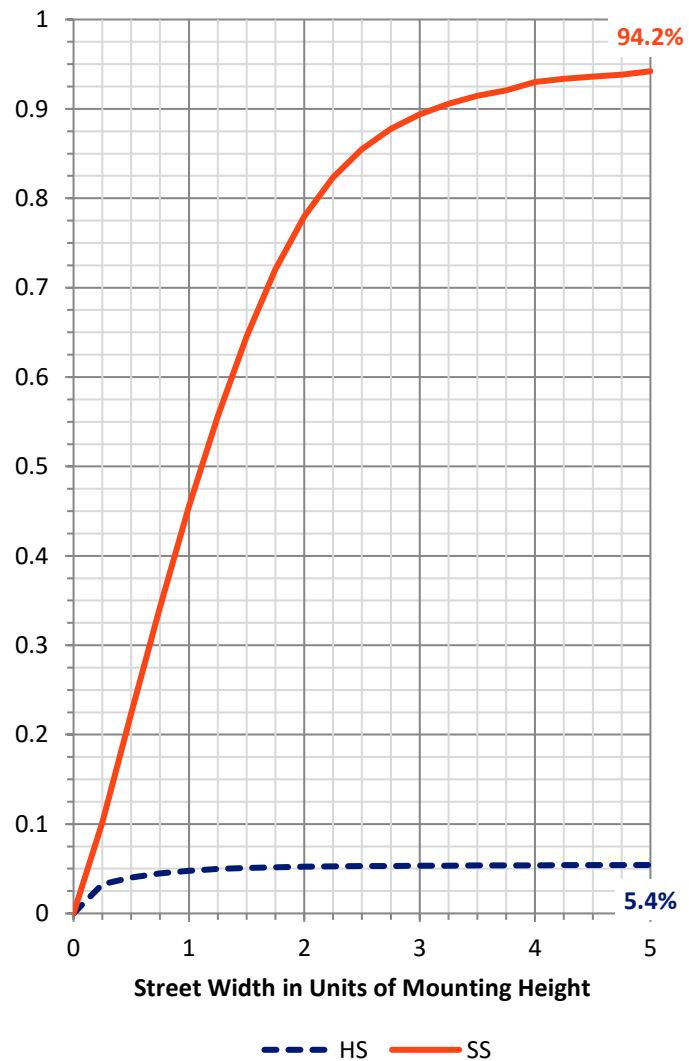
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	37.9	0.0	37.9
	% Fixture	5.5	0.0	5.5
Street Side	Lumens	653.2	0.0	653.2
	% Fixture	94.5	0.0	94.5
Total	Lumens	691.0	0.0	691.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.8	0.5
10°-20°	13.7	2.0
20°-30°	27.4	4.0
30°-40°	51.4	7.4
40°-50°	110.5	16.0
50°-60°	196.1	28.4
60°-70°	202.2	29.3
70°-80°	77.9	11.3
80°-90°	8.1	1.2
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°	691.0	100.0
0°-180°	691.0	100.0

Coefficient of Utilization



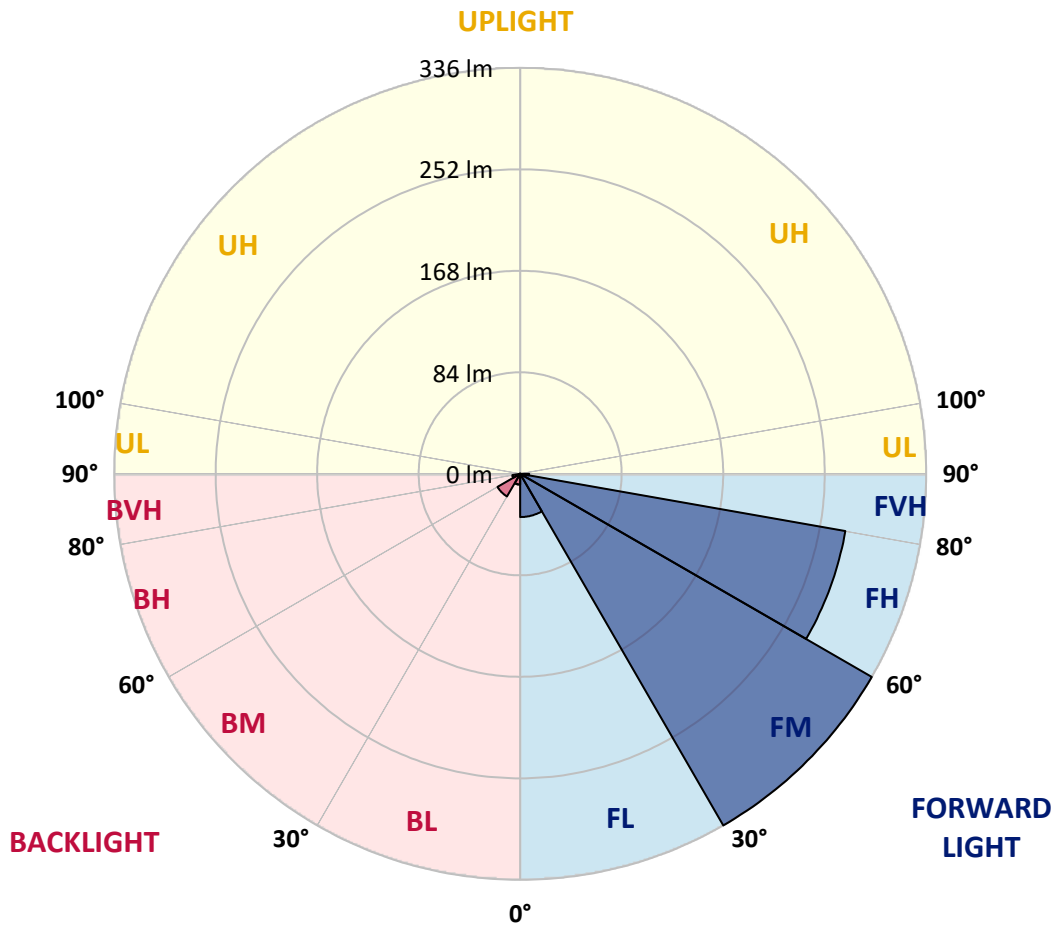
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	35.9	5.2			
FM (30°-60°)	336.3	48.7			
FH (60°-80°)	273.5	39.6			G0/660
FVH (80°-90°)	7.5	1.1			G0/10
BL (0°-30°)	9.0	1.3	B0/110		
BM (30°-60°)	21.7	3.1	B0/220		
BH (60°-80°)	6.6	0.9	B0/110		G0/110
BVH (80°-90°)	0.7	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
0°	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1
2.5°	54.2	46.1	45.2	39.2	39.5	38.9	40.4	39.5	36.9	37.7	37.7
5°	64.7	56.0	56.0	49.7	42.5	42.2	39.8	39.8	44.9	50.6	48.8
7.5°	70.7	65.6	65.3	57.5	47.3	47.3	46.1	47.9	53.3	56.0	53.3
10°	69.2	67.4	64.1	57.8	57.5	59.9	57.5	56.0	57.8	59.6	55.4
12.5°	65.6	66.5	71.0	67.1	69.8	71.3	70.1	67.1	67.7	64.4	59.3
15°	73.4	73.7	73.1	75.8	77.0	77.6	78.2	76.1	72.8	73.4	64.1
17.5°	81.8	83.3	80.9	83.9	86.0	84.5	84.2	81.8	78.2	81.5	72.2
20°	90.2	91.7	89.3	86.0	90.5	89.0	88.1	86.0	81.5	85.7	78.2
22.5°	102.2	99.2	94.1	92.6	94.4	94.1	91.4	86.0	85.1	88.4	86.0
25°	109.4	107.9	104.0	101.0	97.1	95.3	95.0	91.7	92.9	98.9	89.9
27.5°	118.9	120.4	107.9	111.2	105.2	102.8	96.8	95.9	102.2	101.0	95.6
30°	131.8	133.3	118.3	120.1	112.9	111.8	101.9	105.5	110.6	109.1	102.5
32.5°	154.0	151.3	135.1	126.7	123.1	123.7	115.9	109.1	118.3	124.3	114.4
35°	170.2	168.1	150.4	140.8	130.9	128.2	127.3	126.7	134.8	145.0	129.1
37.5°	200.1	193.5	169.9	153.7	151.3	147.7	148.9	149.2	162.1	178.3	161.8
40°	226.5	216.0	186.9	174.1	164.8	170.5	174.1	168.4	192.0	229.2	209.7
42.5°	258.6	243.9	201.9	190.8	188.4	188.4	185.8	192.6	246.0	298.1	256.5
45°	284.0	259.8	213.9	210.9	213.3	211.8	219.0	238.5	322.7	379.0	308.3
47.5°	298.1	275.3	230.4	228.6	231.9	245.1	273.5	304.7	395.2	460.2	358.0
50°	312.8	294.5	250.2	245.4	277.4	285.8	333.8	371.5	462.3	516.2	383.5
52.5°	333.8	310.7	278.9	284.9	335.9	343.9	385.0	440.7	515.6	550.7	389.5
55°	369.4	342.4	322.4	340.9	409.9	417.6	471.6	516.2	568.3	541.7	366.1
57.5°	407.5	378.4	362.5	391.3	477.9	499.4	545.6	565.6	560.5	502.1	328.7
60°	447.6	417.0	404.5	446.1	559.1	592.0	586.0	542.3	521.0	434.1	276.5
62.5°	458.4	421.2	423.6	471.3	619.0	644.1	596.5	509.3	447.0	352.6	215.7
65°	440.1	401.8	420.9	479.4	619.6	607.9	577.0	456.0	353.2	266.3	165.7
67.5°	382.9	351.1	377.5	446.4	551.0	548.0	520.7	397.3	274.1	178.6	101.6
70°	309.5	278.9	316.1	382.6	480.9	482.1	434.1	317.6	184.6	100.7	42.2
72.5°	231.6	213.3	249.9	300.5	399.1	388.0	336.7	219.3	90.8	39.8	15.3
75°	143.5	137.2	176.2	223.2	293.0	287.6	205.5	115.9	38.6	13.5	9.0
77.5°	79.7	70.4	96.5	132.7	173.2	161.8	100.7	59.0	20.7	9.6	6.9
80°	45.8	41.3	50.6	65.3	76.7	73.4	49.7	43.7	14.4	6.9	5.7
82.5°	20.4	18.6	30.0	33.0	34.8	34.2	27.9	38.0	9.0	4.5	5.1
85°	3.6	3.3	13.8	17.4	16.8	13.5	12.0	26.1	3.3	2.7	2.7
87.5°	0.6	0.6	1.2	3.6	3.0	2.1	1.5	3.9	1.5	1.2	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1
2.5°	39.5	33.6	33.9	28.5	26.4	27.3	27.6	26.7	29.7	29.7	32.4
5°	48.5	43.1	37.4	30.6	24.6	21.3	21.3	24.3	26.4	27.0	28.5
7.5°	54.2	47.3	40.1	30.3	21.9	19.5	19.5	20.1	20.7	20.1	21.0
10°	53.0	47.6	38.6	26.7	22.8	19.5	15.6	13.8	12.9	12.9	12.9
12.5°	56.3	48.5	38.0	27.0	21.3	16.2	12.6	11.1	10.5	10.5	10.5
15°	58.1	52.4	38.0	25.2	18.0	13.2	11.4	11.1	10.8	11.1	11.1
17.5°	63.8	56.9	36.9	24.3	15.0	12.3	11.7	11.4	11.4	11.7	11.4
20°	68.9	59.9	35.7	19.8	13.2	12.0	11.7	11.4	11.7	12.0	12.0
22.5°	75.5	61.4	33.6	16.2	12.3	11.7	11.7	11.1	11.7	12.3	12.3
25°	77.9	62.6	30.9	14.4	12.0	11.4	11.1	11.1	11.4	12.3	12.0
27.5°	81.2	61.1	26.4	12.9	11.7	11.1	10.8	11.1	11.1	12.0	11.7
30°	83.9	63.2	22.8	12.3	11.4	10.5	10.8	10.8	10.8	11.7	11.7
32.5°	91.7	61.1	19.5	11.7	10.8	10.5	10.5	10.5	10.5	11.1	11.4
35°	98.6	63.5	17.4	11.4	10.5	9.9	9.6	9.9	9.9	10.5	10.8
37.5°	120.1	66.8	15.0	11.1	10.2	9.6	9.6	9.3	9.6	10.2	10.5
40°	146.5	72.5	13.8	10.8	9.9	9.6	9.3	9.0	9.0	9.6	9.9
42.5°	175.9	78.2	12.9	10.5	9.3	9.0	8.7	8.4	8.4	8.7	9.0
45°	203.4	80.9	12.3	10.2	9.0	8.7	8.4	8.1	7.5	7.8	7.8
47.5°	229.8	83.3	12.0	9.9	9.0	8.4	8.1	7.2	6.6	6.6	6.9
50°	242.7	82.7	11.1	9.3	8.7	8.4	7.5	6.6	5.7	5.7	5.7
52.5°	240.9	76.1	10.5	9.0	8.4	8.1	7.2	5.7	5.1	4.8	4.8
55°	228.6	69.2	9.9	8.4	8.4	7.8	6.6	5.1	4.5	4.2	3.9
57.5°	206.1	62.3	9.3	8.1	8.1	7.2	6.0	4.8	3.9	3.6	3.3
60°	179.5	55.1	8.7	7.5	7.5	6.9	5.4	4.2	3.3	3.0	2.7
62.5°	147.1	45.5	7.8	6.6	6.9	6.0	4.8	3.9	3.0	2.7	2.4
65°	109.7	30.9	6.9	6.0	6.0	5.4	4.2	3.3	2.7	2.4	2.1
67.5°	66.2	17.4	6.0	5.4	5.4	4.8	3.6	3.0	2.7	2.4	1.8
70°	25.8	9.0	5.1	4.8	4.8	4.2	3.3	2.7	2.7	2.4	1.8
72.5°	11.4	6.6	4.5	4.2	4.2	3.6	3.0	2.7	2.7	2.4	1.8
75°	8.1	5.1	3.9	3.6	3.6	2.7	2.7	2.7	2.7	2.4	1.8
77.5°	6.6	4.2	3.0	3.0	3.0	2.1	2.4	2.1	2.1	1.5	0.9
80°	5.7	3.0	2.4	2.4	2.1	1.2	1.8	1.8	1.8	1.5	0.6
82.5°	4.8	2.1	1.8	1.8	1.2	0.6	1.5	1.5	1.5	1.5	0.6
85°	2.4	1.5	1.2	1.2	0.9	0.3	1.2	1.5	1.5	1.5	0.6
87.5°	0.6	0.9	1.2	1.2	0.9	0.3	1.2	1.5	1.5	1.5	0.6
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)