

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: P596074

Luminaire Tested: **MSA-SA2A-AMB-U-T4FT**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596074
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-13)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-AMB-U-T4FT
Description: POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE IV FORWARD THROW OPTICS.
Light Source: (32) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1781 lumens
Efficiency: N/A
Efficacy: 43.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G1

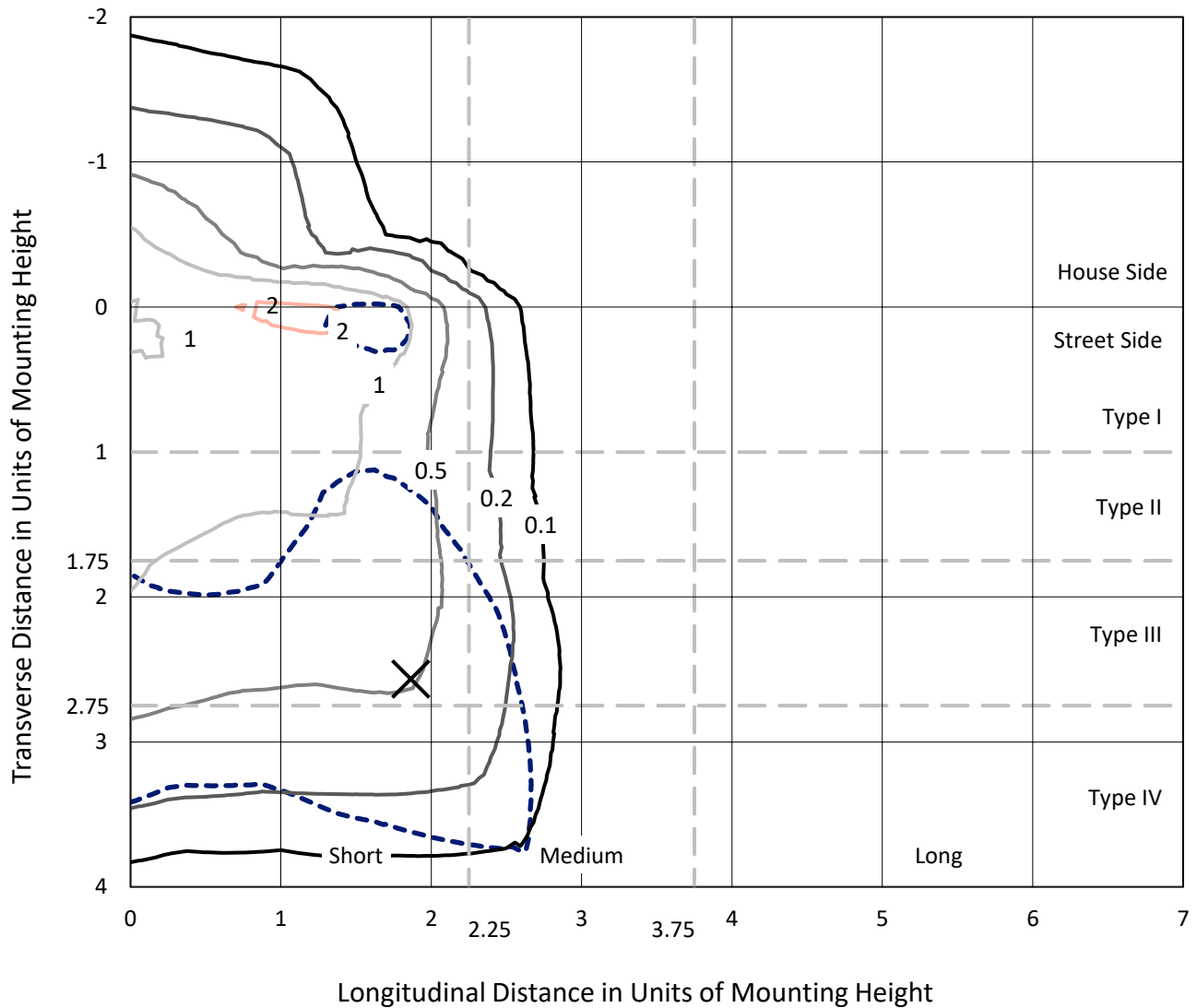
Input Watts (W): 41.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

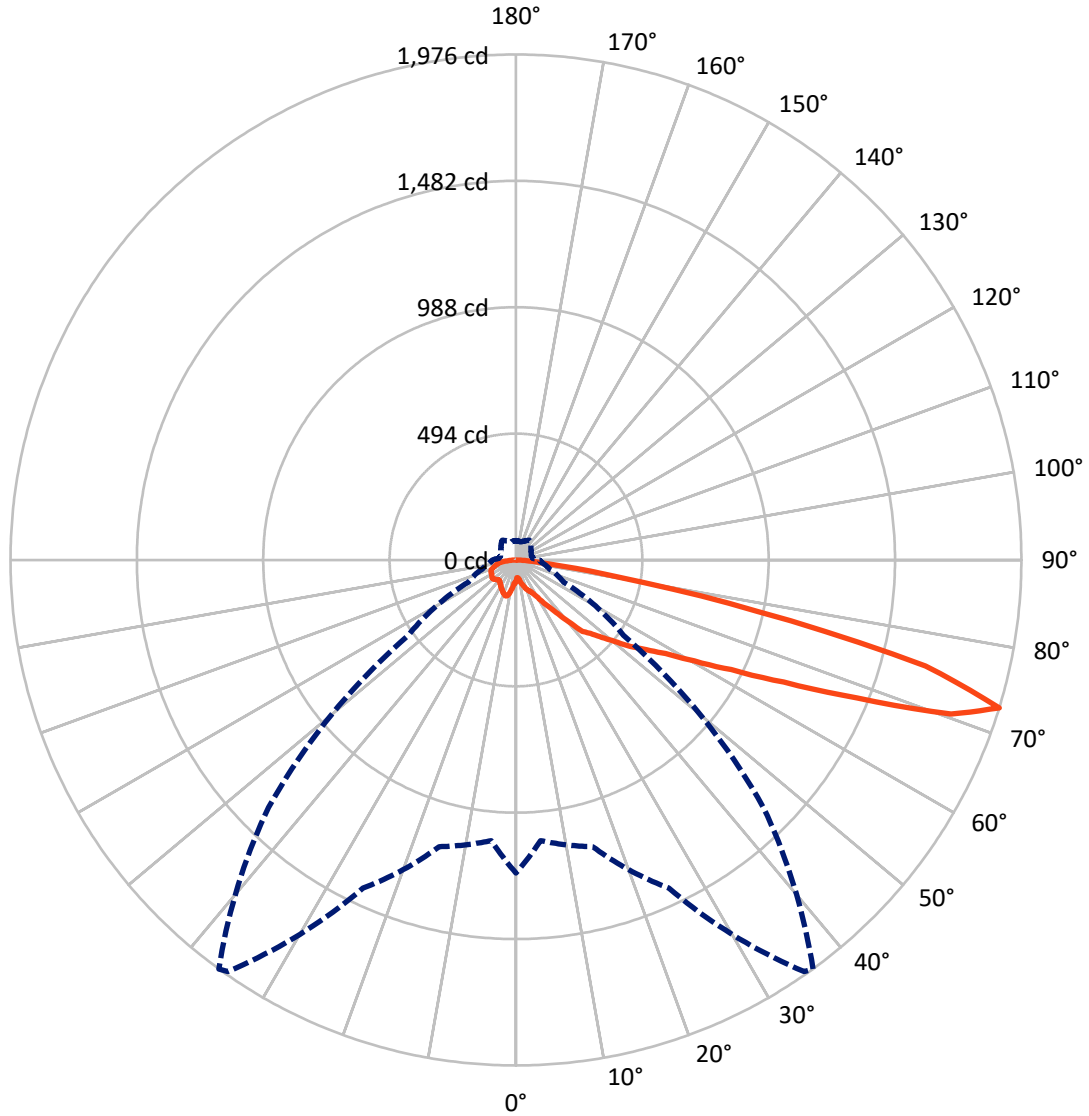
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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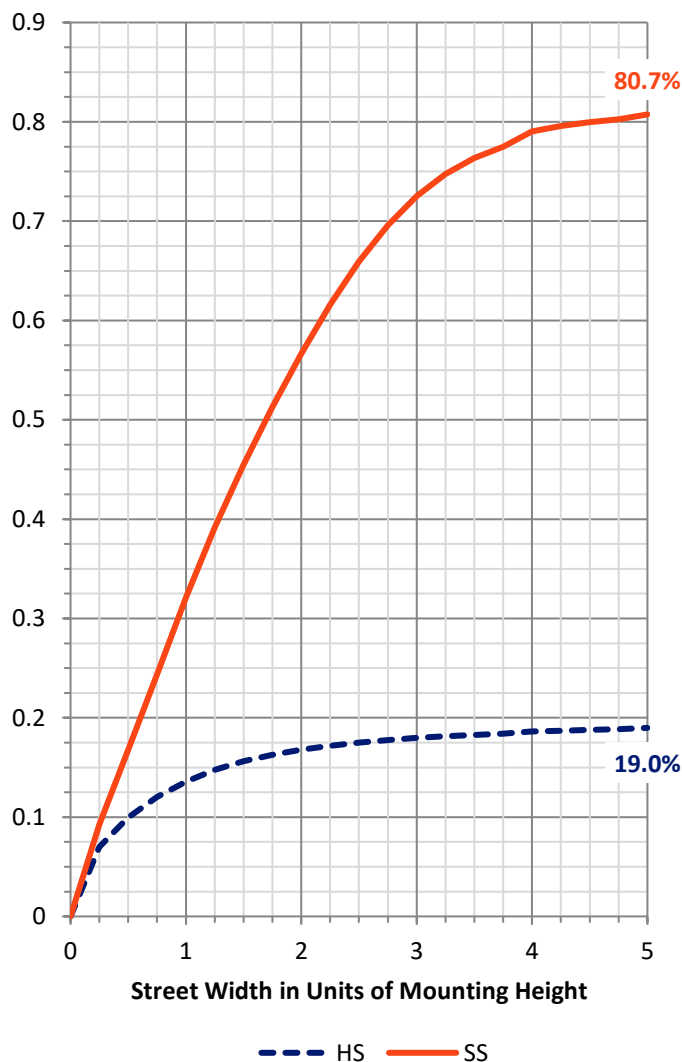
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	343.1	0.0	343.1
	% Fixture	19.3	0.0	19.3
Street Side	Lumens	1437.9	0.0	1437.9
	% Fixture	80.7	0.0	80.7
Total	Lumens	1781.0	0.0	1781.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	9.8	0.5
10°-20°	38.4	2.2
20°-30°	74.9	4.2
30°-40°	131.9	7.4
40°-50°	234.1	13.1
50°-60°	389.3	21.9
60°-70°	521.1	29.3
70°-80°	349.2	19.6
80°-90°	32.3	1.8
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°	1781.0	100.0
0°-180°	1781.0	100.0

Coefficient of Utilization



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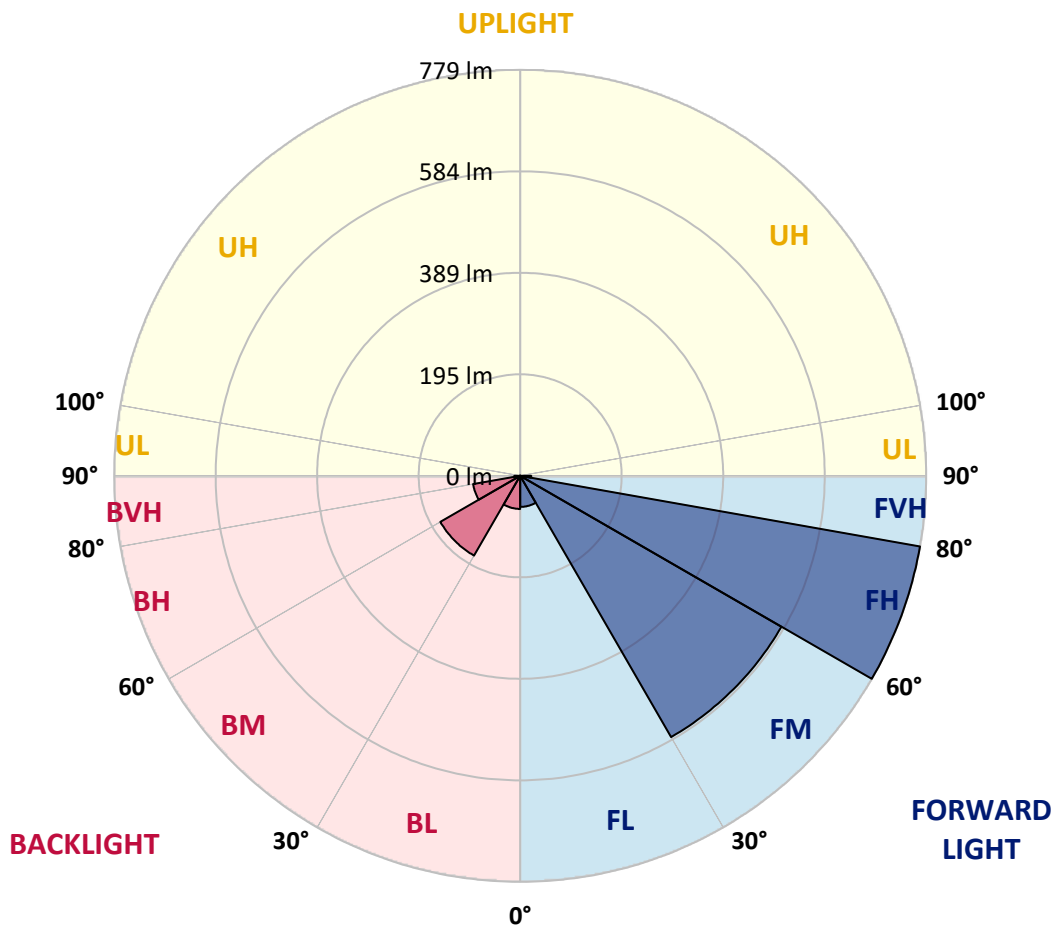
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	59.6	3.3			
FM (30°-60°)	578.6	32.5			
FH (60°-80°)	778.6	43.7			G1/1800
FVH (80°-90°)	21.0	1.2			G1/100
BL (0°-30°)	63.5	3.6	B0/110		
BM (30°-60°)	176.7	9.9	B0/220		
BH (60°-80°)	91.7	5.1	B0/110		G0/110
BVH (80°-90°)	11.2	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8
2.5°	92.1	84.4	80.8	71.4	71.4	69.6	73.8	76.7	79.7	88.5	96.2
5°	94.4	87.3	86.2	80.3	69.6	69.0	67.9	74.9	87.9	107.4	116.8
7.5°	92.1	87.9	87.9	80.8	73.2	72.6	75.5	85.6	99.1	115.1	128.1
10°	86.7	85.6	82.0	77.9	82.0	81.4	88.5	92.7	102.7	118.6	132.2
12.5°	86.7	86.2	87.3	86.2	92.7	94.4	100.3	107.4	116.8	129.8	144.6
15°	99.1	98.6	95.6	97.4	101.5	102.1	110.4	118.0	127.5	142.8	154.6
17.5°	114.5	115.1	108.6	109.8	112.7	113.3	119.8	125.7	134.6	153.4	177.6
20°	134.0	133.4	122.2	117.4	123.3	123.3	128.1	131.6	137.5	161.1	194.2
22.5°	156.4	152.3	135.1	128.6	129.8	131.0	132.2	137.5	140.5	164.6	213.0
25°	177.6	175.3	154.0	143.4	139.9	138.1	142.2	145.2	152.8	174.7	221.9
27.5°	204.2	206.0	174.1	165.8	154.6	153.4	149.3	156.4	165.2	179.4	241.4
30°	244.9	238.4	203.6	190.6	175.9	172.3	163.5	174.1	179.4	191.2	269.7
32.5°	286.8	280.9	236.6	218.9	201.8	201.2	192.4	187.7	198.3	214.2	300.4
35°	328.1	323.4	285.6	254.9	227.2	227.8	219.5	222.5	223.7	234.9	331.7
37.5°	393.0	385.4	336.4	293.9	274.4	267.3	265.0	262.6	254.3	263.2	398.9
40°	446.1	424.3	376.5	347.0	321.0	315.7	319.9	296.8	286.2	303.3	475.6
42.5°	488.0	469.2	419.6	401.9	377.1	381.2	357.6	331.1	332.2	350.5	553.5
45°	528.8	492.2	432.6	423.7	411.3	409.0	411.9	396.6	394.8	409.6	624.4
47.5°	562.4	524.0	470.3	455.6	443.2	452.6	480.4	460.3	461.5	480.4	728.2
50°	603.7	559.4	507.5	488.6	500.4	499.3	565.3	537.0	523.4	553.0	846.3
52.5°	650.9	595.4	544.1	538.8	557.1	561.2	620.2	622.0	587.8	638.5	995.6
55°	705.8	640.3	597.8	585.4	623.8	619.1	693.4	732.9	675.1	726.5	1114.8
57.5°	776.6	704.6	676.3	657.4	684.6	689.9	792.0	831.5	727.0	800.2	1185.0
60°	887.6	800.2	760.1	735.3	789.0	802.0	904.7	902.9	762.5	828.0	1146.0
62.5°	1027.4	941.3	866.9	846.3	944.2	944.2	1051.6	965.5	761.3	774.8	940.7
65°	1217.4	1111.2	1023.9	986.1	1136.0	1150.8	1249.3	1003.2	695.8	618.5	614.3
67.5°	1373.8	1261.1	1175.5	1200.3	1444.1	1438.7	1458.2	995.6	565.3	432.0	341.7
70°	1413.4	1304.8	1247.5	1385.0	1813.5	1804.0	1549.1	804.9	379.5	245.5	165.8
72.5°	1223.9	1101.2	1160.2	1415.7	1964.0	1975.8	1367.9	513.4	204.8	136.3	99.1
75°	681.0	607.8	736.5	1119.5	1660.0	1654.1	880.5	254.3	114.5	90.9	76.1
77.5°	254.3	222.5	295.7	574.2	1014.4	963.1	377.1	112.7	77.9	70.8	62.0
80°	75.5	69.0	99.1	218.3	403.7	399.5	121.0	66.1	60.2	56.1	46.6
82.5°	34.8	32.5	47.2	83.2	144.0	129.2	54.9	44.9	46.0	38.4	28.9
85°	15.9	15.3	24.8	37.8	57.2	51.3	25.4	23.0	26.6	22.4	15.3
87.5°	2.4	3.5	5.9	8.3	8.3	10.0	5.3	6.5	7.1	6.5	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°	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8
2.5°	100.9	90.9	96.2	88.5	85.0	91.5	90.9	90.3	96.2	94.4	100.9
5°	124.5	116.3	113.9	104.5	93.2	87.3	92.1	106.8	120.4	124.5	134.6
7.5°	140.5	132.8	135.1	119.2	100.9	95.0	109.2	119.2	131.0	137.5	146.9
10°	140.5	140.5	139.3	126.9	129.2	129.2	122.2	121.0	131.0	130.4	134.6
12.5°	152.8	153.4	154.0	149.9	151.7	147.5	138.1	134.0	131.6	132.8	134.0
15°	164.1	167.0	173.5	165.8	162.9	154.0	144.0	134.0	135.7	134.0	131.0
17.5°	185.3	194.2	186.5	179.4	168.2	160.5	144.0	134.6	134.0	135.1	129.8
20°	202.4	209.5	196.5	180.6	166.4	151.1	138.1	130.4	132.8	139.3	141.6
22.5°	224.8	230.2	200.1	174.1	151.1	139.9	135.7	131.0	135.7	144.0	144.0
25°	239.0	244.9	205.4	171.7	142.2	126.3	128.6	131.0	134.6	148.7	147.5
27.5°	263.2	253.2	200.6	164.1	129.8	118.0	126.3	131.0	132.2	147.5	151.1
30°	279.1	284.4	200.1	149.9	120.4	112.7	119.2	125.7	131.0	148.7	148.1
32.5°	318.7	295.1	205.4	135.1	111.5	109.8	113.9	121.0	127.5	141.6	145.8
35°	352.3	330.5	195.9	122.2	107.4	105.0	110.4	114.5	120.4	139.9	141.0
37.5°	421.9	356.4	185.9	115.1	104.5	103.9	104.5	110.9	117.4	132.8	138.1
40°	491.0	388.9	169.4	109.2	102.1	103.3	102.7	108.0	111.5	125.1	130.4
42.5°	555.3	420.8	151.1	102.7	101.5	102.7	104.5	106.8	110.4	118.0	122.7
45°	619.6	426.7	132.8	96.2	98.6	109.8	107.4	108.0	108.6	109.8	113.9
47.5°	692.8	444.4	119.8	90.3	99.1	118.0	109.8	106.8	105.0	103.9	107.4
50°	786.1	483.9	105.6	87.9	101.5	119.2	113.9	105.6	100.9	99.7	104.5
52.5°	910.0	522.3	97.4	85.6	100.9	118.6	116.3	104.5	97.4	95.6	100.3
55°	1010.9	534.7	92.7	85.0	97.4	116.8	115.7	102.1	93.8	93.8	97.4
57.5°	1065.8	514.6	89.7	83.2	93.8	113.3	112.1	98.0	92.7	93.2	97.4
60°	1028.0	440.8	85.0	81.4	90.9	108.6	109.8	96.2	90.9	92.7	96.8
62.5°	821.5	319.9	80.3	78.5	86.7	104.5	109.2	94.4	89.1	90.9	95.6
65°	528.8	203.6	75.5	75.5	83.2	100.9	108.6	92.1	86.2	90.3	94.4
67.5°	289.2	128.1	72.0	73.8	80.8	95.6	106.2	90.9	82.6	89.1	92.1
70°	149.3	85.6	67.9	70.2	76.7	90.3	102.1	87.3	78.5	83.8	84.4
72.5°	91.5	67.9	62.0	66.1	70.8	82.0	93.8	82.0	73.2	74.9	75.5
75°	69.6	56.7	54.3	59.6	63.1	73.2	85.6	76.1	67.9	66.7	67.9
77.5°	55.5	45.4	46.6	51.9	53.7	64.9	77.3	70.2	60.8	59.0	59.6
80°	40.7	35.4	37.8	43.1	43.7	57.2	69.6	60.2	50.2	47.2	47.8
82.5°	25.4	22.4	27.1	30.7	30.7	42.5	56.7	43.7	36.0	29.5	29.5
85°	11.8	11.8	15.3	16.5	15.9	20.1	31.9	25.4	19.5	15.3	15.3
87.5°	1.8	3.5	4.1	4.1	3.5	1.2	3.0	3.5	3.5	3.0	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)