

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: P596086

Luminaire Tested: **MSA-SA3A-AMB-U-SL4**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596086
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-21)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3A-AMB-U-SL4
Description: POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS.
Light Source: (48) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2264 lumens
Efficiency: N/A
Efficacy: 37.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G1

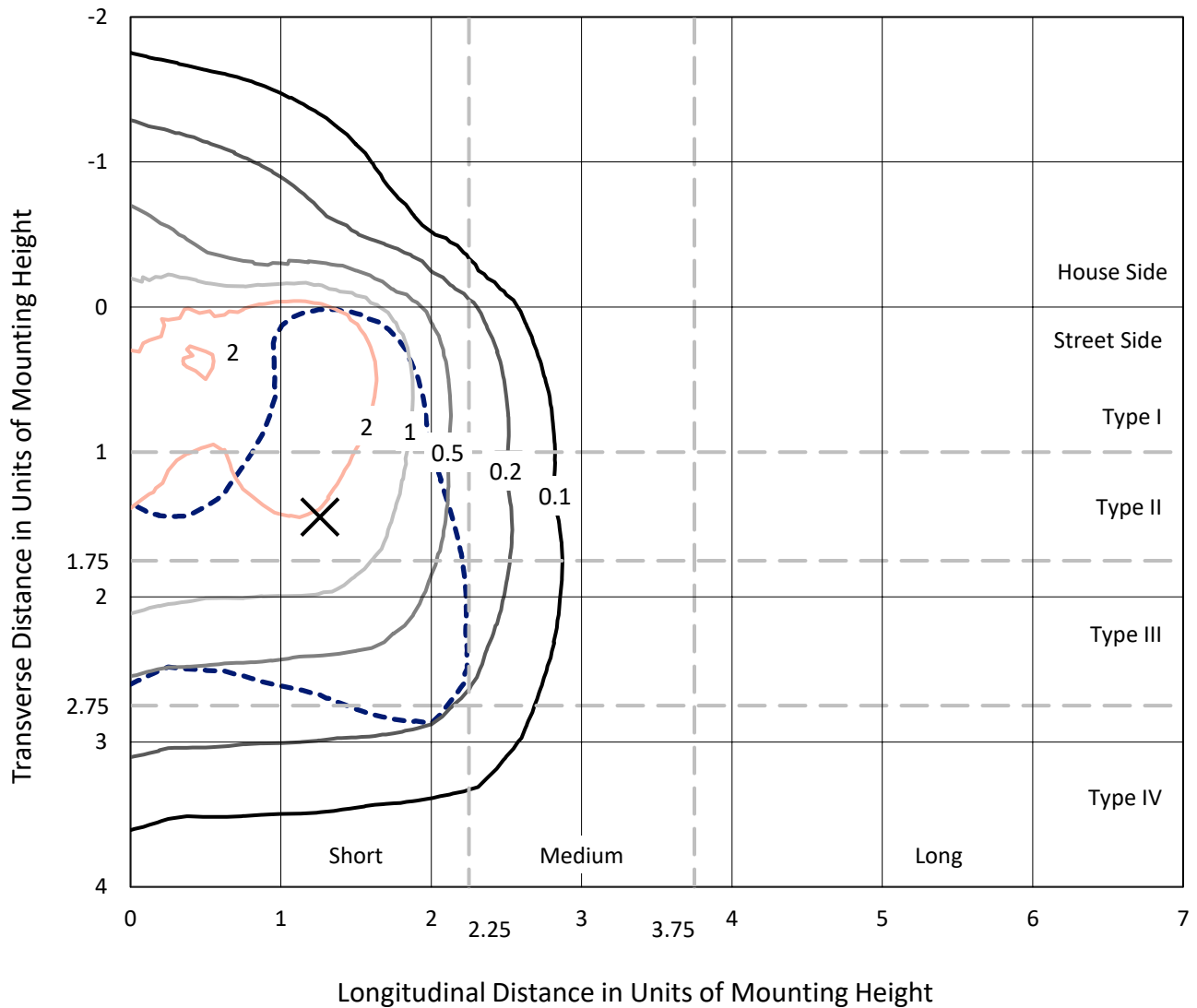
Input Watts (W): 59.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

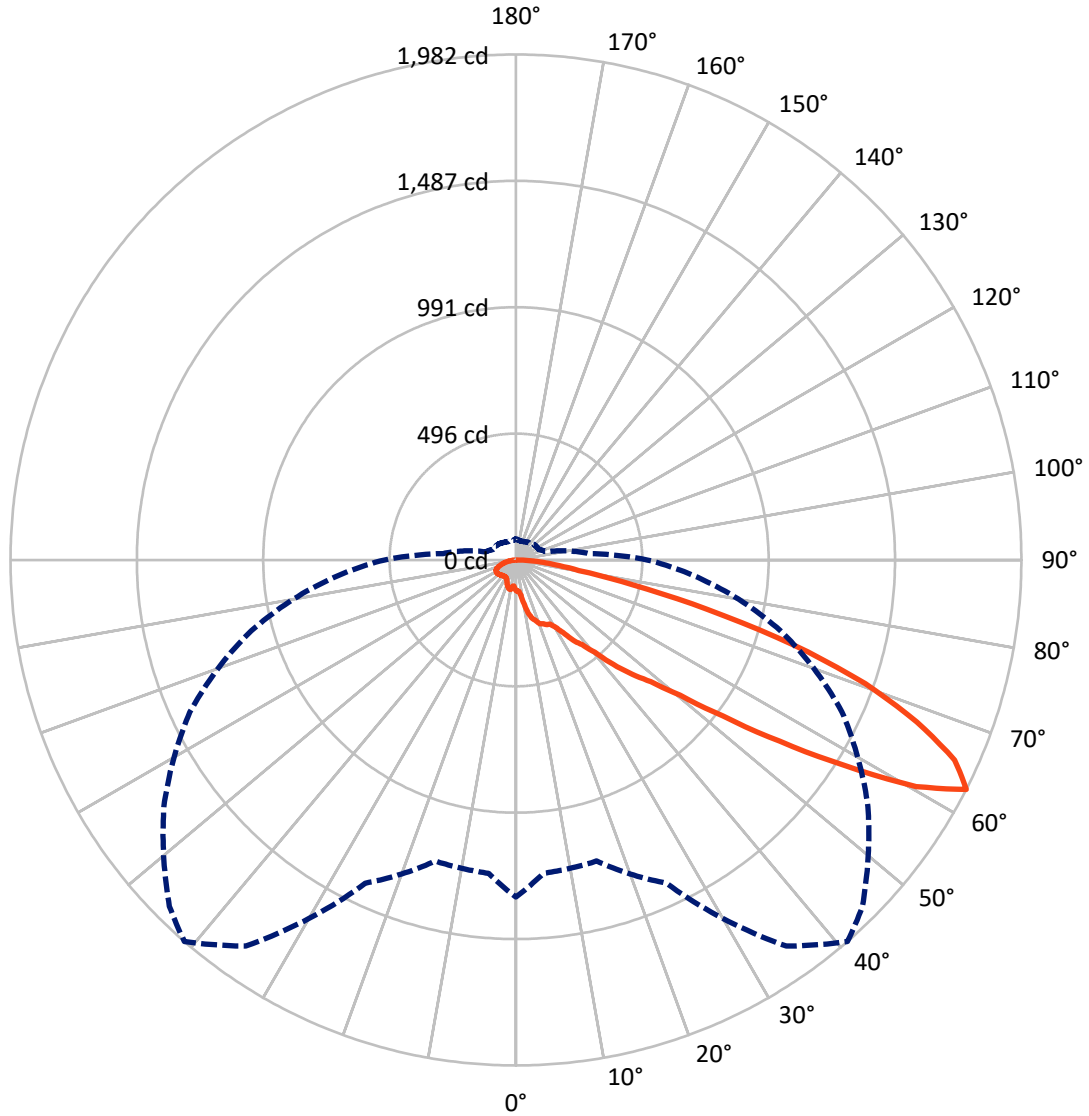
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 41-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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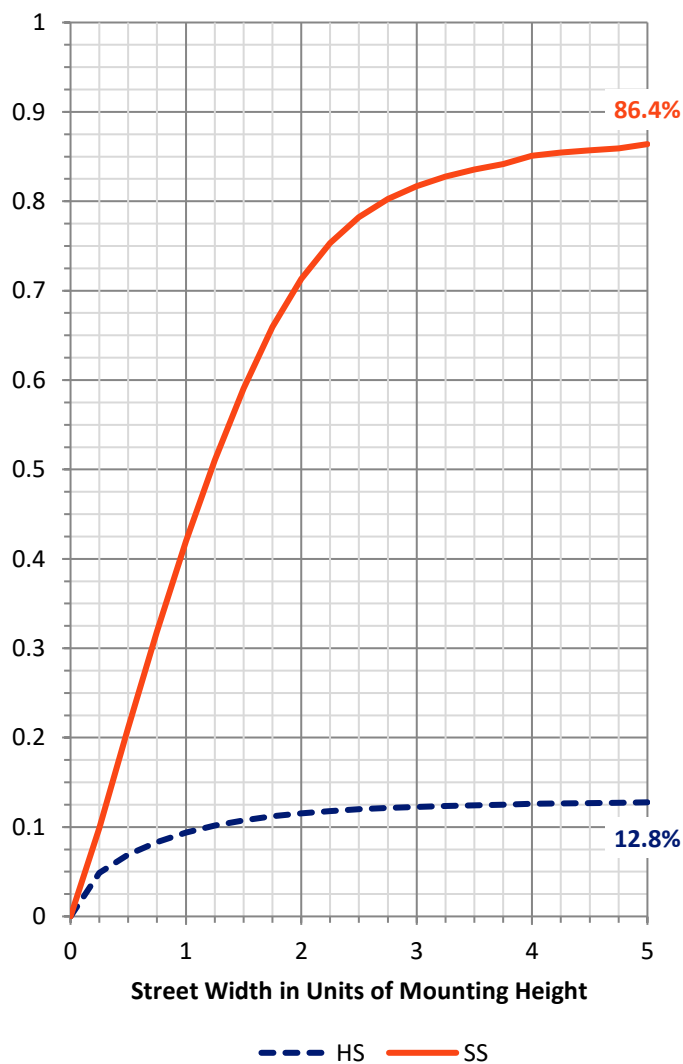
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	292.1	0.0	292.1
	% Fixture	12.9	0.0	12.9
Street Side	Lumens	1971.9	0.0	1971.9
	% Fixture	87.1	0.0	87.1
Total	Lumens	2264.0	0.0	2264.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.7	0.6
10°-20°	50.2	2.2
20°-30°	94.0	4.1
30°-40°	166.5	7.4
40°-50°	340.4	15.0
50°-60°	636.5	28.1
60°-70°	651.0	28.8
70°-80°	265.6	11.7
80°-90°	46.1	2.0
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°	2264.0	100.0
0°-180°	2264.0	100.0

Coefficient of Utilization



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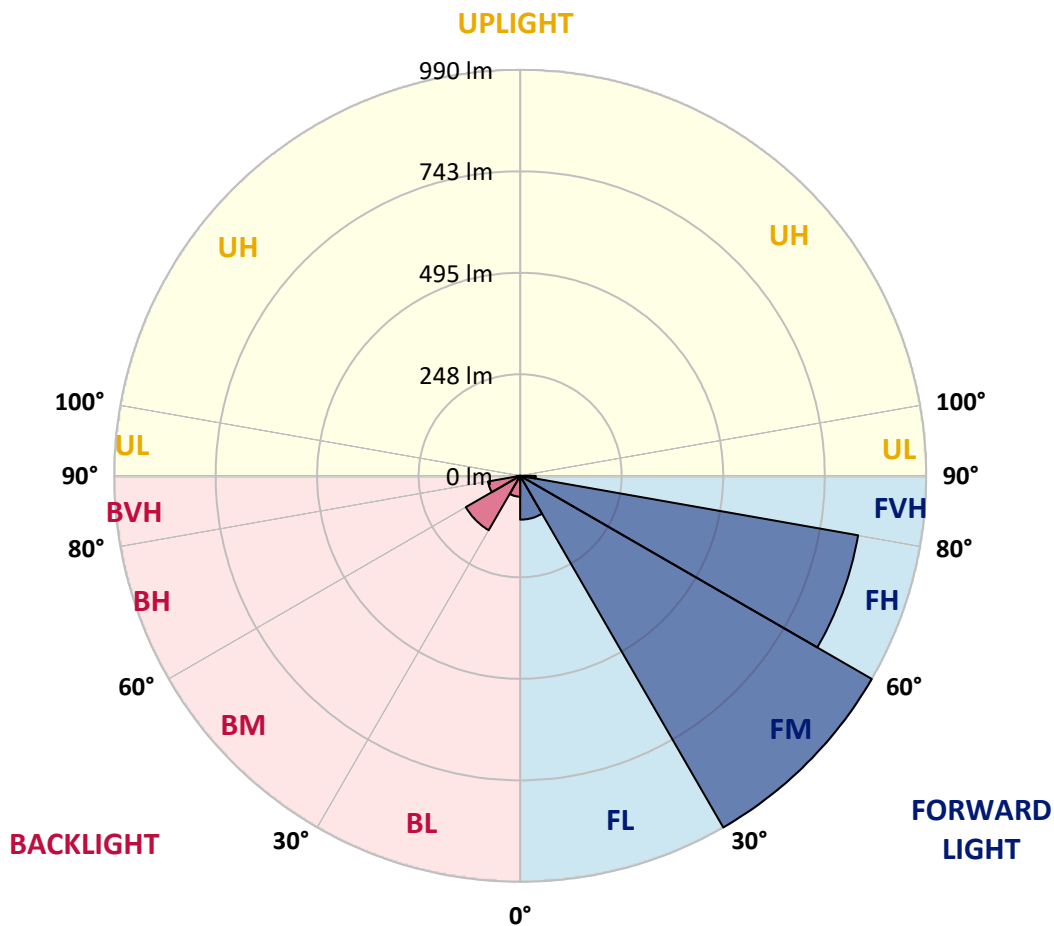
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	106.9	4.7			
FM (30°-60°)	990.3	43.7			
FH (60°-80°)	836.9	37.0			G1/1800
FVH (80°-90°)	37.8	1.7			G1/100
BL (0°-30°)	50.9	2.2	B0/110		
BM (30°-60°)	153.1	6.8	B0/220		
BH (60°-80°)	79.8	3.5	B0/110		G0/110
BVH (80°-90°)	8.4	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	41°	45°	55°	65°	75°	85°
0°	120.5	120.5	120.5	120.5	120.5	120.5	120.5	120.5	120.5	120.5	120.5
2.5°	162.0	141.3	135.7	122.9	122.1	122.1	125.3	122.1	120.5	125.3	139.7
5°	190.8	169.2	167.6	150.9	130.1	124.5	123.7	126.9	142.1	168.4	164.4
7.5°	205.1	196.4	194.0	173.2	145.3	138.9	137.3	154.1	169.2	182.8	183.6
10°	205.1	200.4	192.4	174.0	172.4	174.8	178.0	172.4	181.2	192.4	187.6
12.5°	196.4	196.4	209.9	202.8	209.1	213.1	215.5	207.5	208.3	203.5	200.4
15°	213.1	216.3	217.9	223.5	229.9	237.1	237.1	231.5	229.1	225.1	213.9
17.5°	235.5	239.5	236.3	246.7	253.8	249.0	251.4	245.9	237.9	249.0	235.5
20°	257.8	261.8	258.6	252.2	268.2	266.6	261.8	256.2	245.9	262.6	253.8
22.5°	289.0	281.0	270.6	268.2	273.8	271.4	268.2	256.2	254.6	269.8	276.2
25°	308.9	308.1	291.4	285.8	285.0	281.0	277.0	269.8	276.2	296.1	286.6
27.5°	338.4	339.2	306.5	321.7	303.3	284.2	282.6	280.2	298.5	304.9	303.3
30°	374.4	375.2	339.2	338.4	324.9	306.5	295.3	305.7	323.3	326.5	328.9
32.5°	427.9	426.3	378.4	363.2	350.4	338.4	331.3	311.3	343.2	366.4	360.8
35°	473.3	467.8	425.5	399.9	377.6	387.9	361.6	362.4	387.1	427.1	399.9
37.5°	553.2	542.0	479.7	438.2	436.6	420.7	419.9	429.4	460.6	506.1	488.5
40°	628.2	597.1	522.0	490.9	470.2	476.5	495.7	481.3	538.8	637.0	613.0
42.5°	708.8	668.1	569.1	543.6	535.6	560.4	527.6	542.0	653.7	805.4	740.0
45°	774.3	720.8	597.1	597.9	606.7	639.4	622.6	653.0	829.4	1035.3	911.6
47.5°	824.6	770.3	647.4	638.6	657.7	712.8	747.1	815.0	1042.5	1279.6	1096.0
50°	866.1	824.6	701.6	695.3	769.5	833.4	895.6	989.8	1290.7	1539.8	1265.2
52.5°	923.6	881.2	793.4	807.0	930.7	1016.9	1063.2	1278.0	1535.8	1780.1	1357.8
55°	1038.5	965.9	917.2	951.5	1147.1	1255.6	1319.5	1541.4	1777.7	1844.7	1322.7
57.5°	1152.6	1068.8	1037.7	1118.3	1349.0	1521.4	1621.2	1777.7	1824.8	1752.1	1167.8
60°	1284.4	1195.7	1172.6	1312.3	1618.0	1804.0	1824.0	1784.0	1719.4	1486.3	956.3
62.5°	1321.9	1233.3	1222.1	1398.5	1847.9	1982.0	1921.3	1685.1	1410.5	1074.4	697.7
65°	1274.0	1183.0	1214.1	1416.1	1888.6	1891.0	1859.9	1448.0	1016.9	744.7	498.1
67.5°	1132.7	1029.7	1093.6	1327.5	1715.4	1696.2	1635.6	1151.0	721.6	530.8	352.8
70°	861.3	795.8	889.2	1080.8	1470.3	1452.8	1292.3	885.2	500.5	351.2	206.7
72.5°	666.5	608.3	672.1	851.7	1180.6	1137.5	957.9	622.6	314.5	188.4	111.0
75°	488.5	429.4	498.1	618.6	853.3	775.1	653.7	379.2	167.6	97.4	75.8
77.5°	317.7	276.2	327.3	383.9	549.2	467.0	360.8	228.3	102.2	65.5	59.9
80°	178.8	163.6	192.4	223.5	291.4	249.8	205.1	170.8	76.6	50.3	45.5
82.5°	111.0	107.0	129.3	142.9	162.0	150.1	138.9	150.1	57.5	33.5	30.3
85°	66.3	66.3	87.0	89.4	102.2	96.6	107.0	118.9	32.7	20.0	19.2
87.5°	16.8	17.6	25.5	27.1	27.1	27.1	29.5	44.7	8.8	6.4	4.8
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°	120.5	120.5	120.5	120.5	120.5	120.5	120.5	120.5	120.5	120.5	120.5
2.5°	142.9	125.3	128.5	116.5	111.8	111.8	113.3	110.2	120.5	116.5	128.5
5°	177.2	156.5	149.3	127.7	109.4	99.8	104.6	119.7	130.1	130.1	141.3
7.5°	192.4	174.0	162.0	131.7	109.4	101.4	107.0	113.3	121.3	126.1	134.1
10°	186.8	174.8	158.8	132.5	126.9	120.5	108.6	100.6	103.8	103.0	106.2
12.5°	198.0	183.6	166.0	146.9	137.3	124.5	108.6	97.4	91.8	89.4	89.4
15°	202.0	194.0	173.2	151.7	135.7	118.9	103.8	91.8	85.4	81.4	80.6
17.5°	219.5	212.3	178.0	153.3	130.9	114.9	99.8	89.4	83.8	81.4	79.0
20°	238.7	222.7	175.6	143.7	124.5	107.0	93.4	85.4	83.0	84.6	85.4
22.5°	255.4	226.7	172.4	130.9	111.0	98.2	89.4	83.0	82.2	84.6	84.6
25°	264.2	233.9	166.0	122.9	100.6	87.8	83.0	81.4	81.4	85.4	84.6
27.5°	277.0	231.5	154.9	114.1	92.6	82.2	81.4	80.6	79.8	84.6	84.6
30°	283.4	243.5	146.9	105.4	87.0	79.0	78.2	79.8	80.6	86.2	86.2
32.5°	308.9	240.3	144.5	99.8	83.0	78.2	78.2	79.0	82.2	87.0	88.6
35°	331.3	253.8	139.7	95.0	81.4	77.4	79.0	79.0	83.0	89.4	91.0
37.5°	390.3	270.6	138.9	94.2	82.2	79.0	78.2	79.8	84.6	91.0	93.4
40°	463.0	300.9	137.3	95.0	83.0	80.6	79.0	80.6	84.6	91.0	94.2
42.5°	554.8	340.0	140.5	97.4	85.4	81.4	80.6	81.4	84.6	90.2	93.4
45°	666.5	377.6	143.7	98.2	87.0	84.6	81.4	82.2	83.8	88.6	91.8
47.5°	784.7	424.7	151.7	101.4	90.2	87.0	82.2	81.4	82.2	86.2	89.4
50°	891.6	471.8	155.7	105.4	94.2	88.6	83.8	81.4	80.6	83.8	87.8
52.5°	933.1	482.1	156.5	107.8	98.2	91.0	84.6	81.4	79.0	81.4	86.2
55°	891.6	455.0	153.3	108.6	99.8	92.6	86.2	82.2	78.2	80.6	84.6
57.5°	789.4	411.1	148.5	107.8	99.8	92.6	86.2	81.4	77.4	79.0	83.0
60°	660.9	354.4	137.3	104.6	99.8	92.6	86.2	80.6	76.6	78.2	82.2
62.5°	515.7	286.6	122.9	98.2	95.8	91.0	83.8	79.0	76.6	79.0	83.0
65°	394.3	215.5	105.4	90.2	90.2	86.2	81.4	75.8	74.2	75.8	79.0
67.5°	262.6	150.1	91.8	83.0	82.2	80.6	77.4	70.2	66.3	66.3	67.8
70°	156.5	102.2	78.2	73.4	73.4	71.8	70.2	63.1	58.3	57.5	58.3
72.5°	99.8	81.4	67.8	63.9	63.9	62.3	61.5	56.7	51.9	50.3	51.1
75°	77.4	70.2	59.1	55.1	55.1	54.3	53.5	48.7	45.5	43.9	43.1
77.5°	65.5	59.9	49.5	46.3	46.3	43.9	43.9	40.7	37.5	35.1	33.5
80°	49.5	48.7	39.1	36.7	38.3	34.3	35.1	32.7	28.7	24.7	23.1
82.5°	34.3	36.7	28.7	26.3	26.3	23.1	25.5	23.1	20.8	17.6	15.2
85°	23.1	24.7	18.4	15.2	13.6	10.4	13.6	13.6	12.0	9.6	8.0
87.5°	3.2	4.8	4.8	4.8	4.0	1.6	4.8	4.8	4.8	4.8	2.4
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)