

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: P596118

Luminaire Tested: **MSA-SA4A-AMB-U-T3**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596118
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-11)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4A-AMB-U-T3
Description: POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE III OPTICS.
Light Source: (64) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2973.1 lumens
Efficiency: N/A
Efficacy: 37.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G1

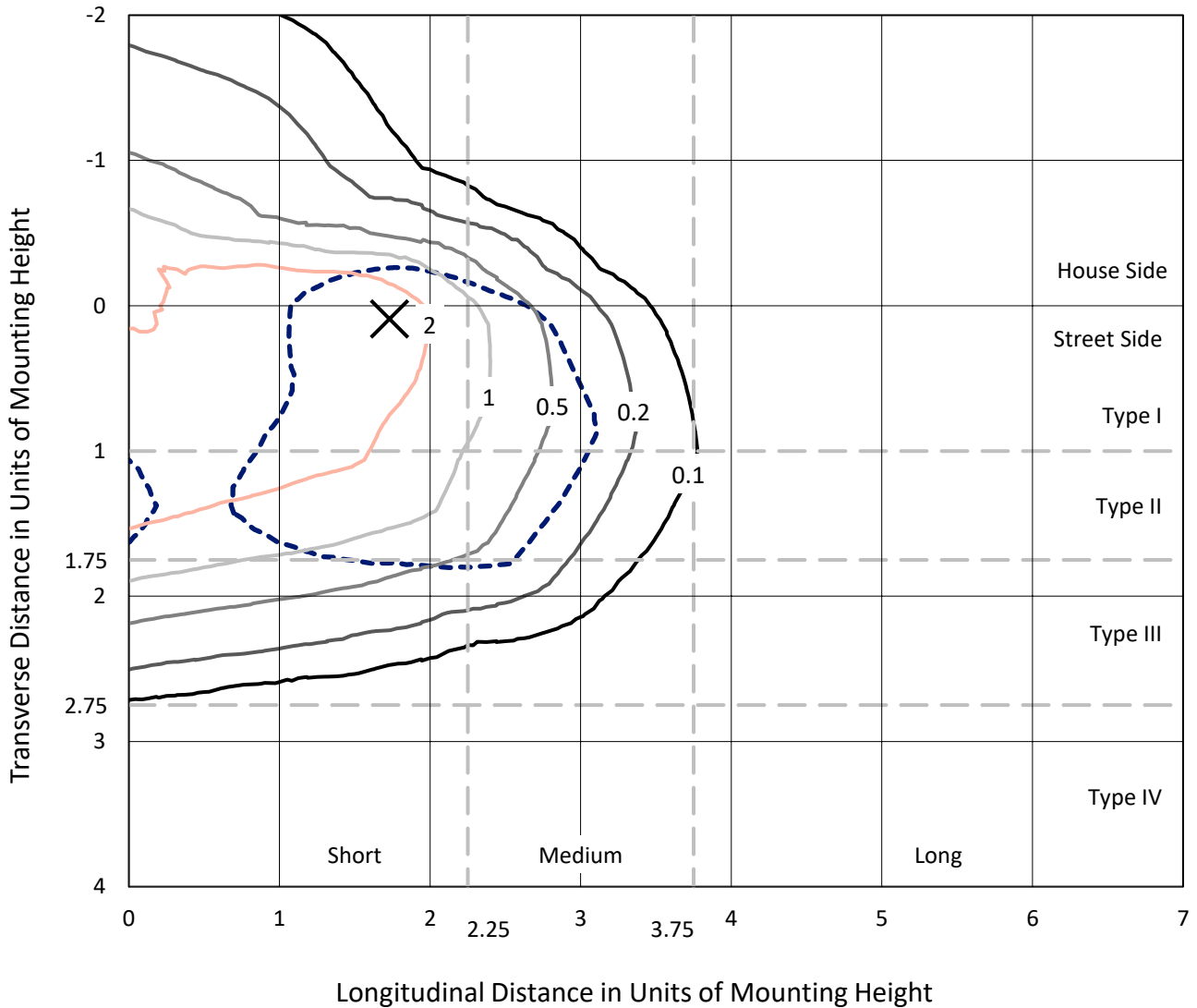
Input Watts (W): 79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596118
 CATALOG NUMBER: MSA-SA4A-AMB-U-T3

Iso-Footcandle Lines of Horizontal Illumination

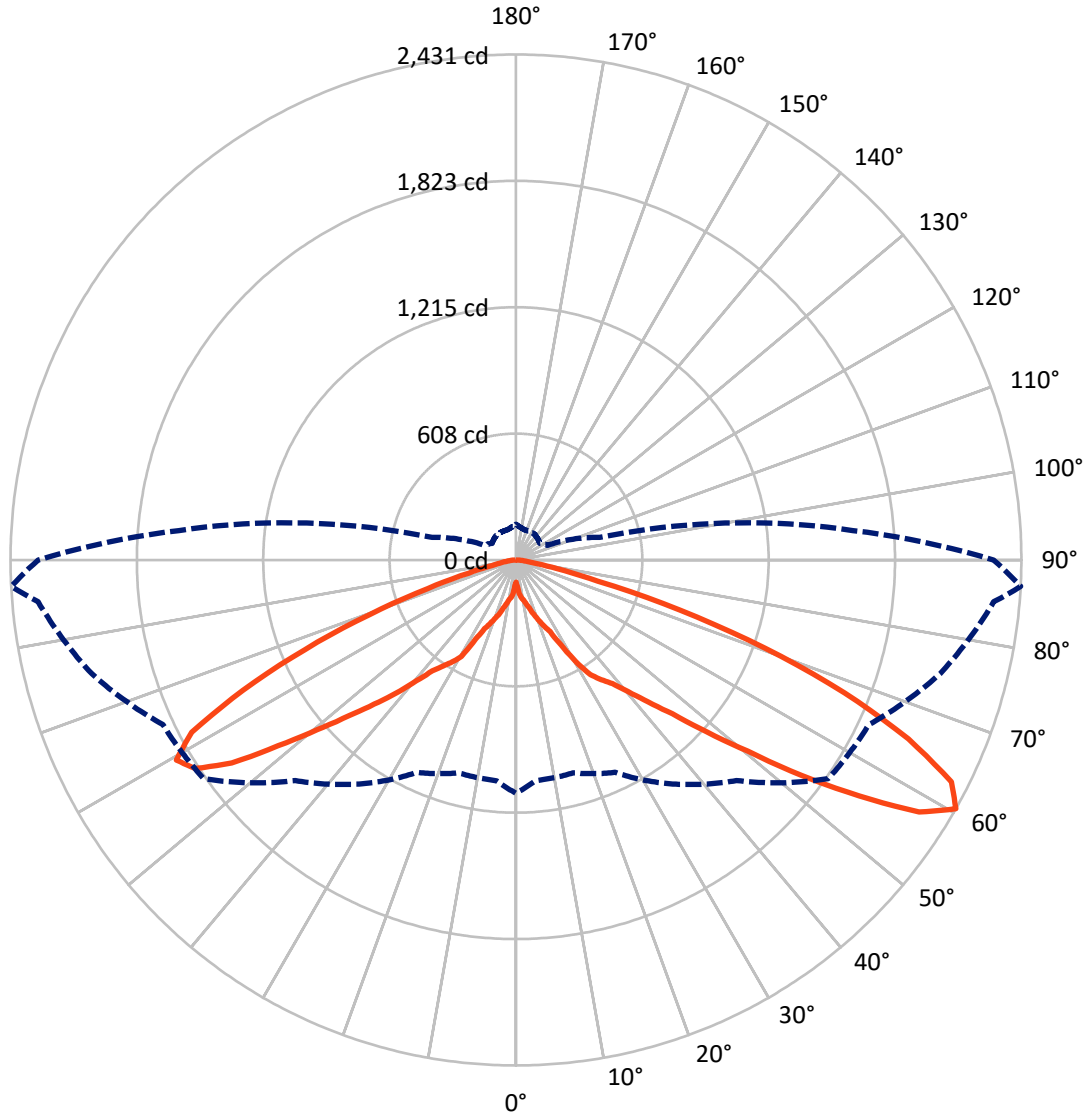
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.9 fc
 Type III - Short - N/A

REPORT NUMBER: P596118
CATALOG NUMBER: MSA-SA4A-AMB-U-T3

Luminous Intensity Polar Plot



— Vertical Plane Through 87-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

REPORT NUMBER: P596118

CATALOG NUMBER: MSA-SA4A-AMB-U-T3

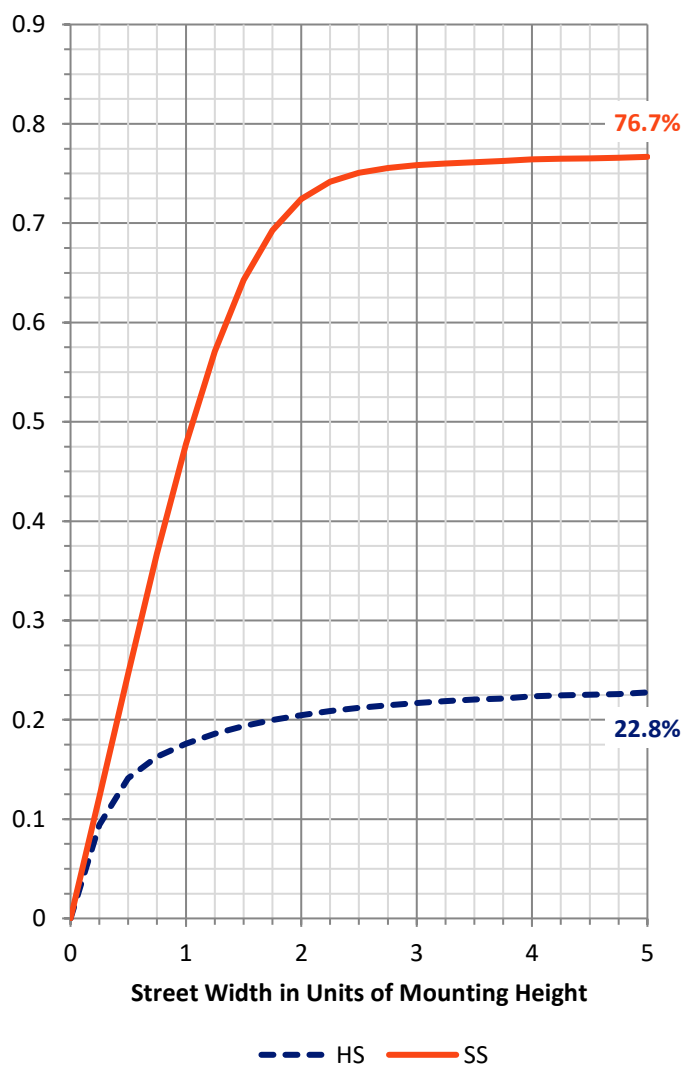
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	687.6	0.0	687.6
	% Fixture	23.1	0.0	23.1
Street Side	Lumens	2285.5	0.0	2285.5
	% Fixture	76.9	0.0	76.9
Total	Lumens	2973.1	0.0	2973.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	14.0	0.5
10°-20°	68.9	2.3
20°-30°	161.3	5.4
30°-40°	308.2	10.4
40°-50°	496.0	16.7
50°-60°	785.6	26.4
60°-70°	820.9	27.6
70°-80°	279.4	9.4
80°-90°	38.8	1.3
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°	2973.1	100.0
0°-180°	2973.1	100.0

Coefficient of Utilization



REPORT NUMBER: P596118

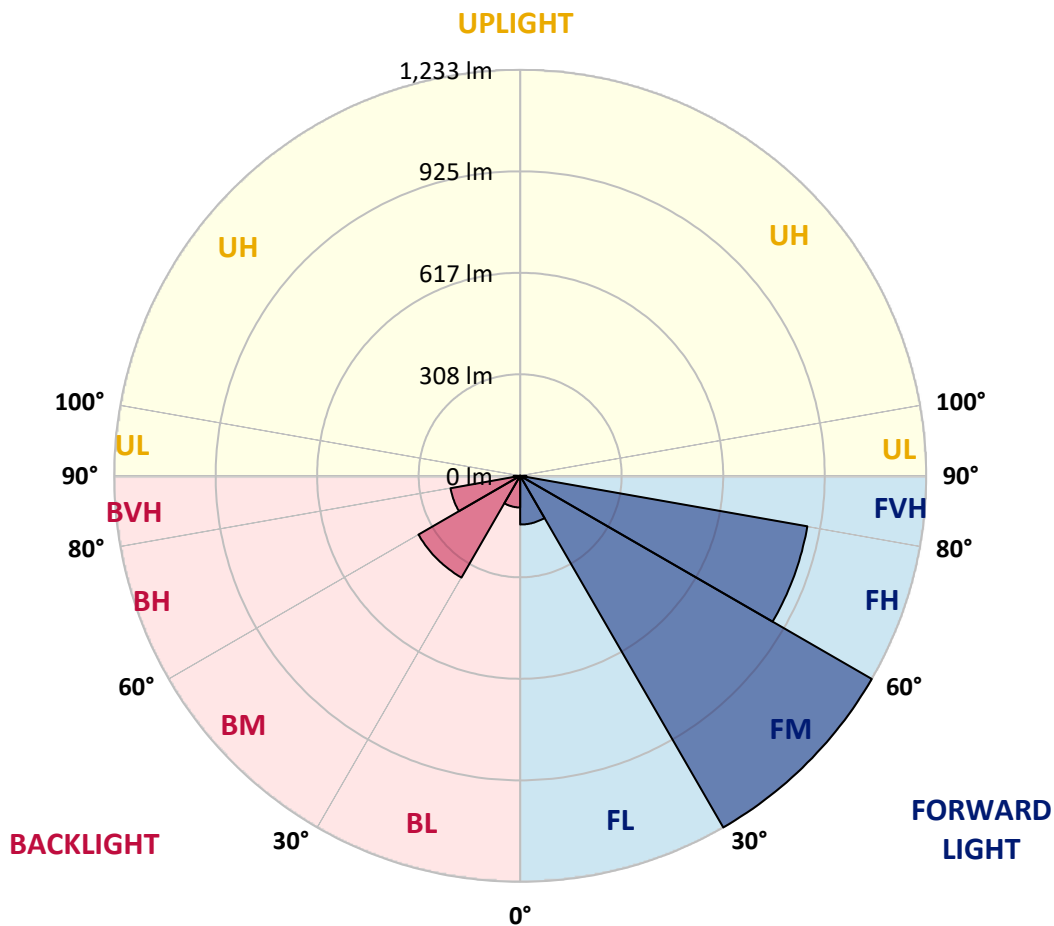
CATALOG NUMBER: MSA-SA4A-AMB-U-T3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	148.0	5.0			
FM (30°-60°)	1233.0	41.5			
FH (60°-80°)	885.6	29.8			G1/1800
FVH (80°-90°)	18.8	0.6			G1/100
BL (0°-30°)	96.2	3.2	B0/110		
BM (30°-60°)	356.8	12.0	B1/1000		
BH (60°-80°)	214.7	7.2	B1/500		G1/500
BVH (80°-90°)	19.9	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short





REPORT NUMBER: P596118

CATALOG NUMBER: MSA-SA4A-AMB-U-T3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	87°
0°	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0
2.5°	130.0	116.0	113.0	104.0	104.0	108.0	111.0	111.0	119.0	126.0	129.0
5°	162.0	146.0	143.0	128.0	112.0	110.0	114.0	131.0	148.0	158.0	160.0
7.5°	194.0	182.0	179.0	159.0	139.0	131.0	143.0	158.0	171.0	180.0	182.0
10°	219.0	215.0	203.0	182.0	178.0	175.0	174.0	176.0	190.0	193.0	194.0
12.5°	238.0	234.0	242.0	230.0	227.0	227.0	217.0	217.0	217.0	215.0	214.0
15°	282.0	280.0	267.0	265.0	264.0	262.0	258.0	255.0	252.0	238.0	238.0
17.5°	322.0	321.0	309.0	302.0	297.0	295.0	288.0	282.0	289.0	278.0	273.0
20°	374.9	372.9	351.9	345.9	344.9	331.0	304.0	300.0	315.0	310.0	307.0
22.5°	443.9	435.9	409.9	386.9	386.9	372.9	338.0	330.0	335.0	347.9	343.9
25°	546.9	537.9	484.9	471.9	458.9	428.9	407.9	376.9	378.9	386.9	380.9
27.5°	603.9	591.9	537.9	546.9	512.9	467.9	469.9	443.9	420.9	465.9	464.9
30°	684.9	679.9	579.9	599.9	580.9	513.9	519.9	501.9	499.9	595.9	566.9
32.5°	795.9	773.9	677.9	649.9	630.9	607.9	569.9	567.9	600.9	672.9	656.9
35°	854.9	873.9	745.9	712.9	676.9	648.9	667.9	670.9	697.9	729.9	706.9
37.5°	981.9	949.9	848.9	772.9	767.9	747.9	751.9	731.9	716.9	763.9	753.9
40°	1031.8	1017.9	888.9	824.9	801.9	815.9	756.9	749.9	776.9	837.9	831.9
42.5°	1069.8	1044.8	940.9	893.9	840.9	824.9	806.9	820.9	876.9	950.9	931.9
45°	1142.8	1071.8	996.9	946.9	883.9	910.9	879.9	898.9	1000.9	1056.8	1054.8
47.5°	1206.8	1139.8	1065.8	1015.9	957.9	1032.8	953.9	996.9	1162.8	1217.8	1235.8
50°	1233.8	1174.8	1110.8	1041.8	1053.8	1120.8	1087.8	1144.8	1351.8	1413.8	1444.8
52.5°	1251.8	1192.8	1121.8	1079.8	1140.8	1190.8	1240.8	1293.8	1526.8	1645.8	1720.7
55°	1265.8	1195.8	1140.8	1147.8	1237.8	1305.8	1433.8	1545.8	1754.7	1924.7	2003.7
57.5°	1214.8	1149.8	1119.8	1163.8	1292.8	1451.8	1628.8	1744.7	1953.7	2147.7	2286.7
60°	1121.8	1065.8	1059.8	1126.8	1314.8	1499.8	1833.7	1872.7	2111.7	2306.7	2430.6
62.5°	961.9	888.9	897.9	1006.9	1271.8	1569.8	1981.7	1912.7	2171.7	2306.7	2349.7
65°	735.9	674.9	687.9	813.9	1128.8	1524.8	2074.7	1919.7	2104.7	2108.7	2074.7
67.5°	464.9	405.9	433.9	568.9	820.9	1295.8	1983.7	1823.7	1959.7	1744.7	1704.7
70°	217.0	206.0	215.0	287.0	485.9	882.9	1613.8	1553.8	1613.8	1328.8	1269.8
72.5°	112.0	106.0	115.0	151.0	235.0	448.9	1094.8	1180.8	1238.8	879.9	822.9
75°	84.0	81.0	86.0	99.0	133.0	175.0	535.9	685.9	762.9	476.9	406.9
77.5°	66.0	64.0	68.0	79.0	96.0	96.0	220.0	315.0	350.9	210.0	198.0
80°	50.0	48.0	53.0	62.0	71.0	68.0	98.0	152.0	160.0	93.0	87.0
82.5°	34.0	34.0	38.0	44.0	50.0	46.0	64.0	77.0	77.0	50.0	52.0
85°	25.0	25.0	26.0	27.0	28.0	25.0	36.0	41.0	42.0	27.0	26.0
87.5°	5.0	5.0	10.0	10.0	10.0	7.0	12.0	13.0	13.0	10.0	8.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P596118
 CATALOG NUMBER: MSA-SA4A-AMB-U-T3

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0
2.5°	130.0	118.0	118.0	107.0	104.0	107.0	103.0	102.0	107.0	108.0	114.0
5°	166.0	152.0	144.0	127.0	109.0	102.0	107.0	122.0	135.0	140.0	149.0
7.5°	189.0	175.0	170.0	146.0	126.0	119.0	130.0	142.0	157.0	165.0	177.0
10°	196.0	188.0	181.0	164.0	162.0	162.0	157.0	155.0	167.0	170.0	175.0
12.5°	218.0	211.0	205.0	198.0	195.0	194.0	187.0	188.0	189.0	193.0	192.0
15°	237.0	236.0	233.0	219.0	213.0	215.0	215.0	213.0	213.0	214.0	213.0
17.5°	269.0	269.0	248.0	231.0	233.0	242.0	234.0	225.0	231.0	229.0	223.0
20°	301.0	292.0	266.0	240.0	246.0	245.0	236.0	223.0	223.0	232.0	233.0
22.5°	340.0	321.0	274.0	250.0	246.0	242.0	229.0	212.0	213.0	222.0	221.0
25°	377.9	352.9	302.0	279.0	262.0	229.0	210.0	199.0	197.0	214.0	213.0
27.5°	452.9	408.9	335.0	319.0	263.0	210.0	196.0	186.0	180.0	194.0	199.0
30°	553.9	518.9	389.9	335.0	257.0	197.0	175.0	169.0	166.0	185.0	187.0
32.5°	626.9	544.9	423.9	325.0	235.0	184.0	164.0	160.0	157.0	171.0	175.0
35°	663.9	586.9	452.9	318.0	215.0	169.0	158.0	150.0	150.0	165.0	167.0
37.5°	715.9	634.9	500.9	315.0	201.0	165.0	147.0	145.0	146.0	156.0	162.0
40°	798.9	720.9	533.9	310.0	187.0	155.0	141.0	141.0	141.0	150.0	154.0
42.5°	901.9	835.9	582.9	295.0	177.0	147.0	140.0	135.0	138.0	146.0	151.0
45°	1036.8	928.9	580.9	270.0	162.0	148.0	137.0	134.0	139.0	145.0	152.0
47.5°	1200.8	1027.8	572.9	245.0	154.0	151.0	135.0	135.0	140.0	147.0	153.0
50°	1419.8	1148.8	542.9	218.0	149.0	146.0	139.0	138.0	143.0	151.0	158.0
52.5°	1667.8	1306.8	517.9	195.0	146.0	146.0	146.0	143.0	147.0	154.0	161.0
55°	1962.7	1490.8	504.9	183.0	144.0	147.0	151.0	151.0	154.0	159.0	166.0
57.5°	2197.7	1603.8	473.9	177.0	142.0	148.0	155.0	153.0	154.0	162.0	169.0
60°	2297.7	1626.8	417.9	168.0	140.0	147.0	153.0	151.0	151.0	162.0	172.0
62.5°	2185.7	1484.8	357.9	149.0	134.0	141.0	149.0	146.0	148.0	164.0	174.0
65°	1865.7	1181.8	293.0	136.0	127.0	135.0	146.0	145.0	150.0	174.0	183.0
67.5°	1456.8	865.9	223.0	124.0	121.0	131.0	150.0	153.0	154.0	181.0	191.0
70°	1066.8	543.9	171.0	110.0	114.0	132.0	149.0	148.0	151.0	174.0	181.0
72.5°	639.9	315.0	129.0	100.0	105.0	122.0	144.0	145.0	146.0	158.0	165.0
75°	325.0	175.0	100.0	91.0	94.0	110.0	134.0	135.0	133.0	137.0	144.0
77.5°	151.0	95.0	78.0	82.0	83.0	95.0	118.0	119.0	116.0	116.0	122.0
80°	79.0	64.0	67.0	69.0	69.0	77.0	97.0	100.0	93.0	91.0	95.0
82.5°	49.0	44.0	55.0	55.0	53.0	56.0	72.0	73.0	68.0	61.0	62.0
85°	24.0	28.0	39.0	39.0	33.0	31.0	46.0	44.0	41.0	36.0	36.0
87.5°	7.0	12.0	13.0	14.0	8.0	4.0	8.0	7.0	8.0	7.0	4.0
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)