

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: P596491

Luminaire Tested: **MSA-SA1A-827-U-T3-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596491
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-11)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1A-827-U-T3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2194 lumens
Efficiency: N/A
Efficacy: 64.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G1

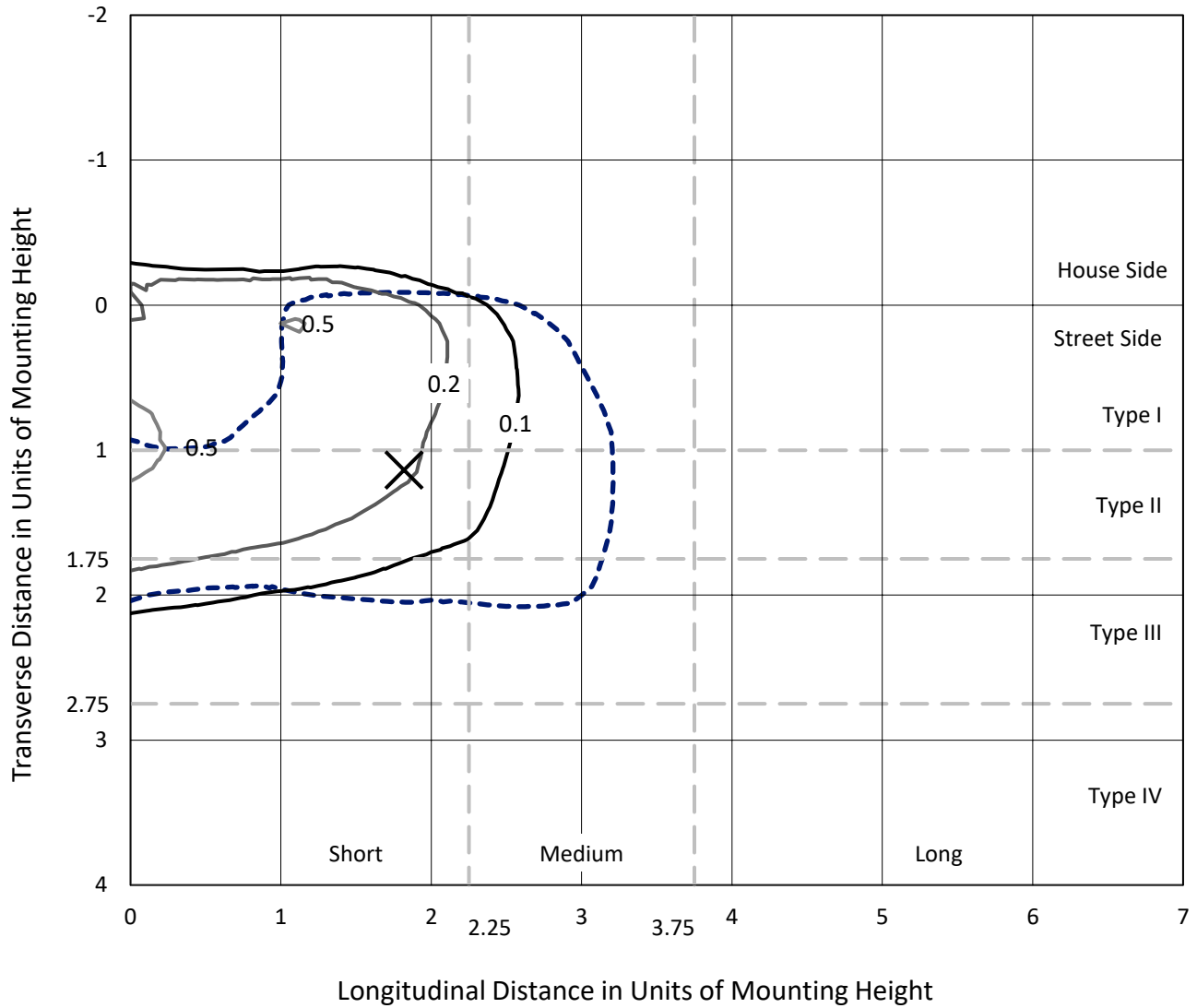
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

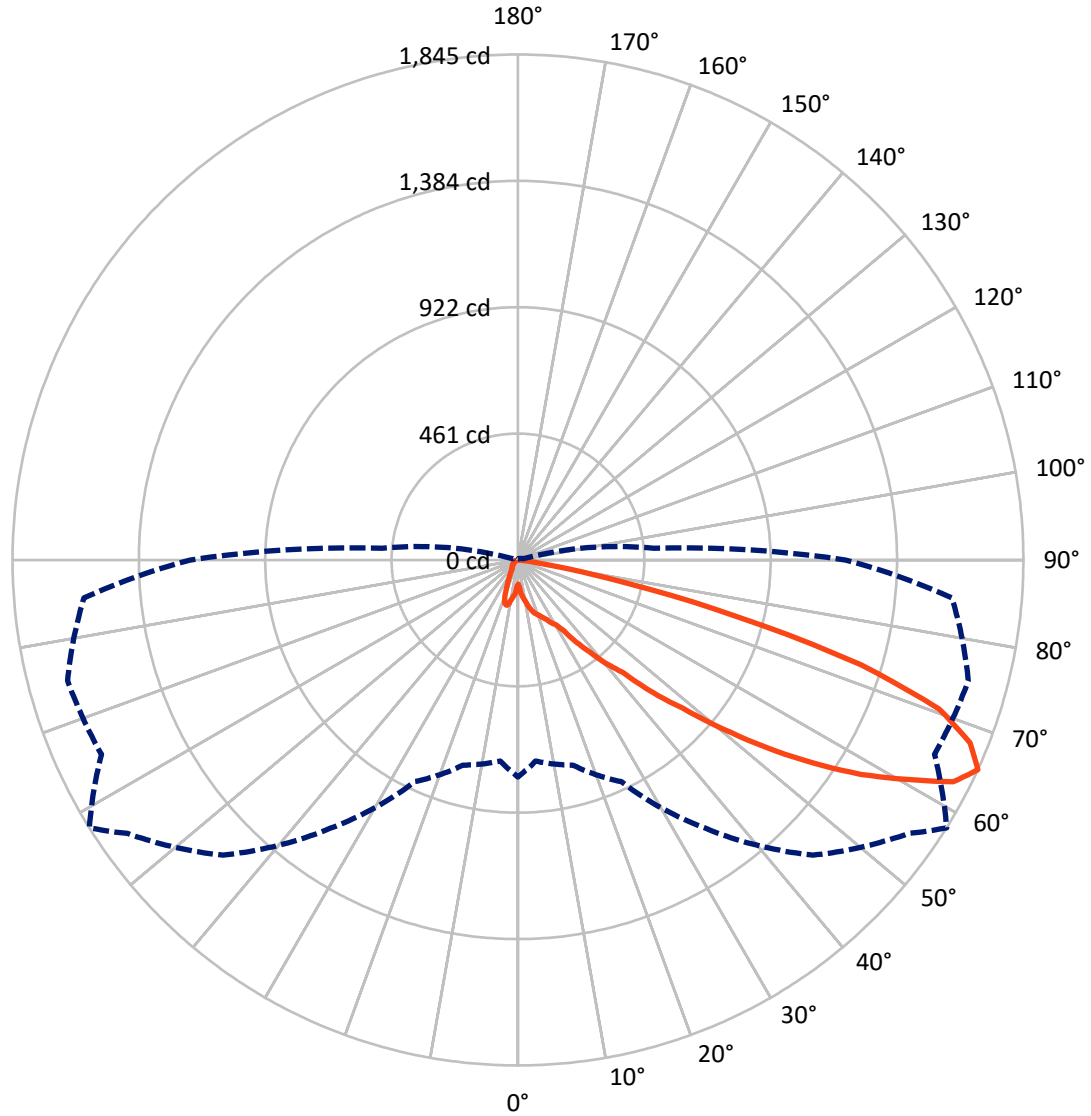
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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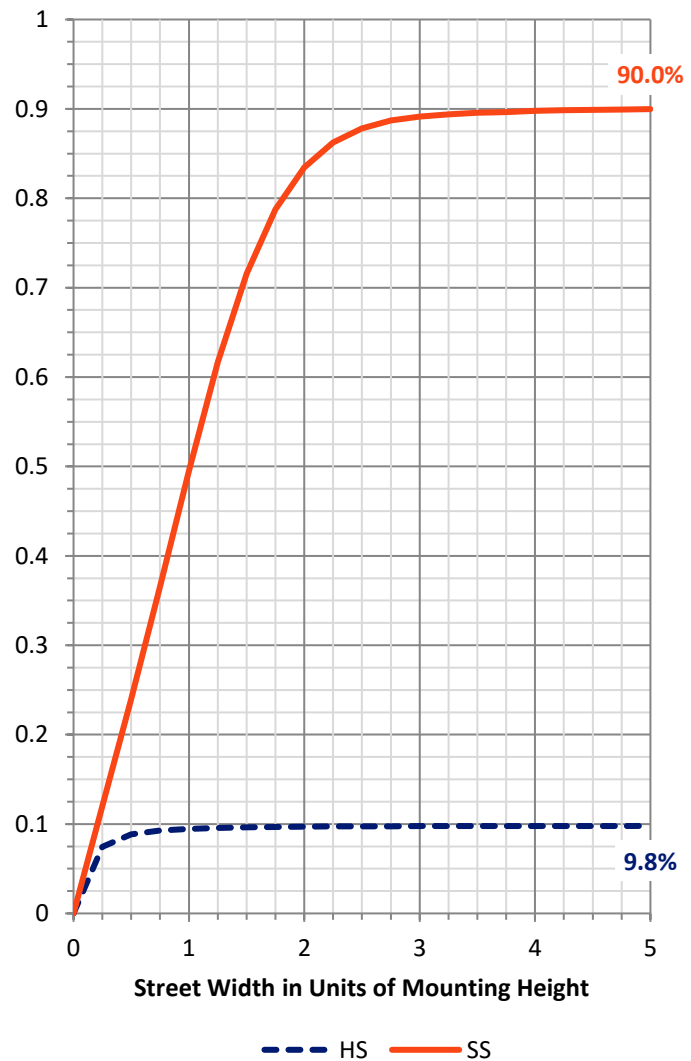
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	216.5	0.0	216.5
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	1977.5	0.0	1977.5
	% Fixture	90.1	0.0	90.1
Total	Lumens	2194.0	0.0	2194.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	12.3	0.6
10°-20°	45.0	2.1
20°-30°	87.2	4.0
30°-40°	173.9	7.9
40°-50°	355.6	16.2
50°-60°	630.7	28.7
60°-70°	664.9	30.3
70°-80°	215.6	9.8
80°-90°	8.8	0.4
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°	2194.0	100.0
0°-180°	2194.0	100.0

Coefficient of Utilization

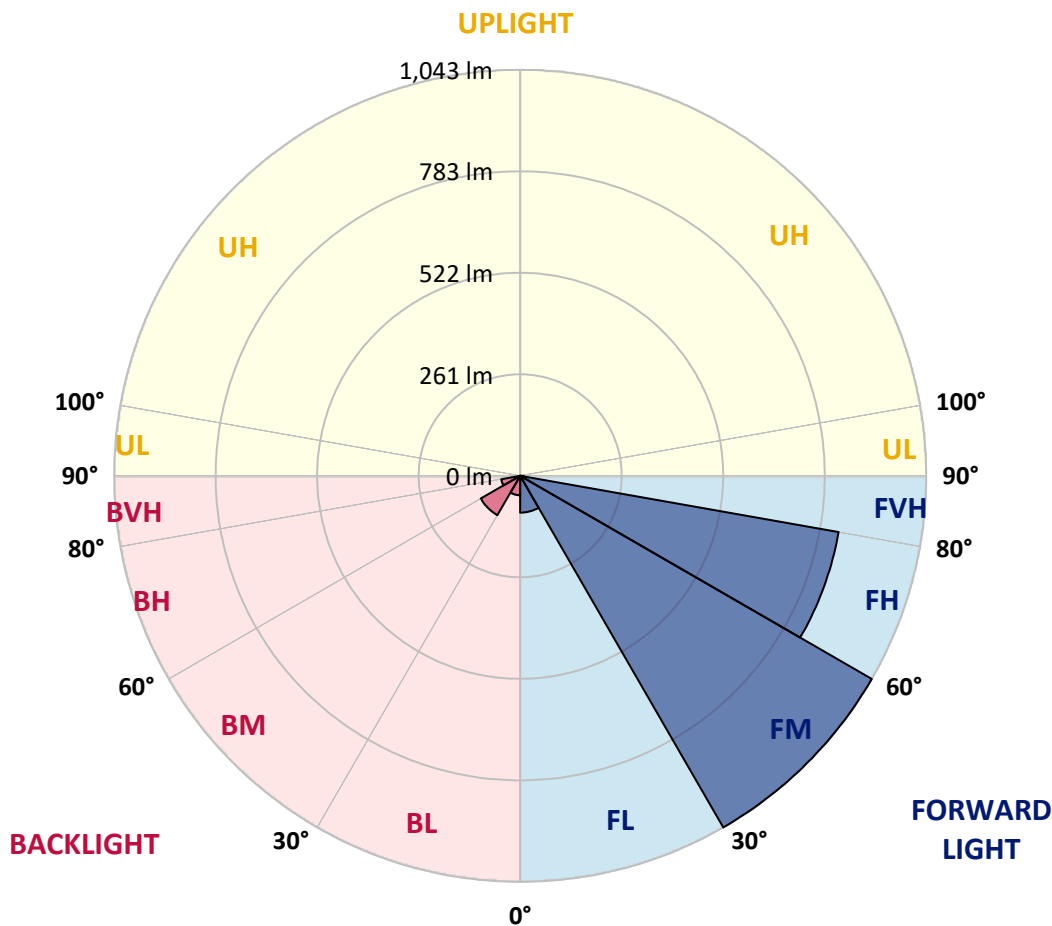


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	94.7	4.3			
FM (30°-60°)	1043.4	47.6			
FH (60°-80°)	831.1	37.9			G1/1800
FVH (80°-90°)	8.4	0.4			G0/10
BL (0°-30°)	49.9	2.3	B0/110		
BM (30°-60°)	116.8	5.3	B0/220		
BH (60°-80°)	49.4	2.3	B0/110		G0/110
BVH (80°-90°)	0.4	0.0			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8
2.5°	107.2	104.0	98.9	99.8	100.8	102.8	101.2	99.7	98.1	96.0	104.0
5°	129.5	124.1	123.7	122.5	121.7	121.6	123.5	122.9	123.8	127.7	131.8
7.5°	137.6	135.4	131.2	132.9	130.2	128.1	136.9	139.7	145.1	147.0	157.6
10°	136.7	133.5	135.3	136.1	138.0	145.6	151.2	154.3	159.0	169.1	167.0
12.5°	140.7	143.5	145.4	145.5	155.0	169.1	173.1	175.7	184.1	188.0	198.4
15°	153.9	158.6	155.6	156.9	160.0	177.1	186.4	192.1	203.9	216.8	219.4
17.5°	172.8	175.8	169.6	165.2	173.7	183.1	199.9	205.8	213.3	243.4	248.9
20°	196.7	201.7	188.4	170.7	182.0	193.1	211.4	214.2	222.2	261.4	270.2
22.5°	252.4	244.8	224.5	196.9	193.6	198.5	215.9	227.0	240.6	271.5	291.9
25°	307.3	304.7	274.7	244.0	221.7	210.6	233.7	239.9	262.1	295.6	306.8
27.5°	368.5	373.7	323.5	304.9	261.3	224.9	244.8	260.3	286.6	304.4	331.4
30°	449.2	440.9	382.1	363.4	313.6	264.4	273.6	274.6	313.3	333.3	359.0
32.5°	512.4	517.7	443.8	415.2	375.4	325.0	295.2	308.1	335.8	380.3	404.7
35°	580.8	580.3	508.3	469.8	417.8	374.5	359.3	368.7	403.4	454.0	460.4
37.5°	683.1	674.3	589.4	532.9	488.7	451.7	440.1	427.7	463.5	511.7	535.7
40°	779.6	749.3	670.8	603.8	547.2	532.2	490.2	497.8	508.4	572.1	638.6
42.5°	877.1	858.3	753.3	697.2	627.7	591.8	564.4	560.8	611.3	686.7	755.5
45°	1005.7	948.2	864.2	814.9	734.4	698.4	676.3	689.5	735.0	845.1	890.9
47.5°	1113.6	1060.7	988.6	913.7	829.3	869.6	828.1	807.3	869.6	983.4	1044.3
50°	1206.4	1147.5	1074.5	1019.0	1005.3	1044.1	960.1	967.7	1008.2	1141.9	1176.2
52.5°	1273.8	1211.8	1148.1	1121.3	1177.5	1197.0	1154.9	1138.0	1174.8	1277.0	1293.7
55°	1324.6	1261.1	1211.3	1248.3	1357.0	1350.5	1365.4	1307.6	1342.8	1418.0	1410.1
57.5°	1327.7	1252.5	1223.3	1282.7	1431.9	1531.4	1574.7	1476.4	1496.4	1528.2	1510.4
60°	1230.6	1155.7	1153.4	1237.8	1453.7	1578.2	1673.1	1625.1	1598.3	1621.9	1588.2
62.5°	1037.2	984.8	1009.2	1102.5	1372.8	1552.4	1725.5	1783.1	1678.8	1684.1	1636.1
65°	791.9	737.0	775.3	892.7	1195.9	1523.5	1740.3	1844.9	1677.3	1701.7	1590.2
67.5°	524.5	492.6	536.0	665.5	950.8	1344.9	1732.6	1780.1	1624.0	1632.7	1419.6
70°	270.8	263.0	298.1	400.2	639.3	1033.2	1657.4	1631.4	1515.9	1406.5	1095.0
72.5°	86.7	87.1	120.8	182.8	344.6	629.0	1274.0	1309.5	1213.1	1028.9	668.5
75°	38.4	37.8	50.5	76.7	143.7	282.0	791.5	829.9	755.3	566.0	281.0
77.5°	27.7	26.8	32.4	44.8	71.2	95.6	371.1	400.5	342.4	196.2	64.4
80°	19.5	19.4	23.5	31.5	44.5	42.5	117.2	131.4	105.2	47.6	18.9
82.5°	11.0	11.4	16.3	22.2	27.1	21.2	33.0	36.3	35.5	25.3	8.3
85°	5.3	5.9	10.6	16.1	14.2	8.3	11.7	12.7	14.8	14.7	4.2
87.5°	0.0	0.0	4.3	7.3	3.8	1.2	3.6	4.1	4.0	4.7	1.0
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°	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8
2.5°	105.6	104.9	95.5	96.2	98.3	97.5	98.2	96.5	94.5	102.5	102.4
5°	133.5	128.0	125.0	122.3	122.8	117.2	120.4	121.9	121.7	126.2	127.5
7.5°	158.0	150.6	144.7	139.0	130.3	122.5	127.4	130.4	132.5	140.5	143.5
10°	169.5	163.4	161.1	150.0	143.8	139.0	133.2	129.0	130.7	128.6	130.7
12.5°	194.7	190.6	181.6	170.3	162.9	153.1	131.4	113.4	102.3	102.4	101.7
15°	217.7	217.4	203.9	185.3	163.8	135.6	101.9	79.2	68.7	65.7	64.7
17.5°	247.7	244.0	219.4	191.8	153.2	105.0	69.4	54.2	53.2	55.0	54.2
20°	266.8	261.4	227.0	182.3	126.2	71.0	52.4	48.1	51.0	53.5	52.9
22.5°	286.0	277.8	232.9	170.7	89.8	52.0	47.3	46.6	48.4	51.5	52.0
25°	296.5	294.9	244.2	149.0	61.5	45.6	45.6	45.3	46.0	48.2	47.8
27.5°	327.0	305.2	235.7	116.2	47.6	41.9	42.5	42.2	40.0	42.2	42.4
30°	346.0	336.0	236.3	82.8	41.9	37.1	38.7	36.7	33.4	35.2	34.8
32.5°	384.3	359.3	234.5	55.8	38.2	35.3	32.9	30.0	27.5	28.3	27.7
35°	428.9	409.9	209.4	44.8	35.6	31.3	27.3	24.5	21.9	22.5	22.4
37.5°	517.6	457.2	188.6	40.4	33.8	28.7	24.1	20.1	18.8	19.1	19.5
40°	599.7	536.1	150.0	38.4	30.9	25.6	19.9	17.0	16.2	16.4	16.8
42.5°	722.5	598.9	113.3	36.4	27.9	21.6	16.6	14.7	13.8	14.3	14.6
45°	841.4	652.2	84.6	34.7	25.4	18.7	14.0	12.7	11.7	12.1	12.6
47.5°	960.1	711.5	63.1	32.0	22.7	16.1	12.0	11.1	10.5	10.6	11.2
50°	1066.3	739.2	49.7	28.7	20.5	14.0	10.9	10.0	9.8	9.9	10.4
52.5°	1144.4	739.4	41.9	25.7	18.4	12.4	10.3	9.3	9.1	9.4	9.9
55°	1214.9	719.7	36.3	23.1	16.6	11.2	9.8	8.9	8.9	9.1	9.6
57.5°	1261.7	683.4	31.5	20.4	14.9	10.6	9.4	8.5	8.4	8.3	8.6
60°	1284.6	633.8	26.7	17.9	13.5	10.3	9.1	7.5	7.4	7.2	7.4
62.5°	1270.1	571.8	22.4	15.4	12.0	9.8	8.0	6.5	6.3	5.8	6.2
65°	1196.3	496.5	18.9	13.2	10.4	8.3	6.8	5.6	4.9	4.3	4.2
67.5°	1045.2	403.3	15.8	11.4	8.9	6.8	5.6	4.9	3.8	3.3	3.2
70°	783.3	275.3	13.1	9.8	7.4	5.8	4.7	4.4	3.6	3.2	3.0
72.5°	459.5	148.6	11.0	8.5	6.3	4.8	3.8	4.1	3.6	3.0	2.7
75°	183.6	49.4	8.8	6.8	5.1	3.5	3.2	3.3	3.2	2.7	2.2
77.5°	41.9	15.6	6.8	5.3	4.0	2.2	2.6	2.8	2.8	2.2	1.6
80°	13.1	6.2	4.0	3.3	2.8	1.2	1.9	2.0	1.4	0.6	0.0
82.5°	4.2	1.7	1.4	1.4	1.2	0.2	0.4	0.2	0.0	0.0	0.0
85°	1.6	1.1	0.9	0.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.6	0.5	0.4	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0
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)