

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: P366823

Luminaire Tested: **MSA-SA1B-760-U-SL2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366823
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-760-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS
EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4151 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

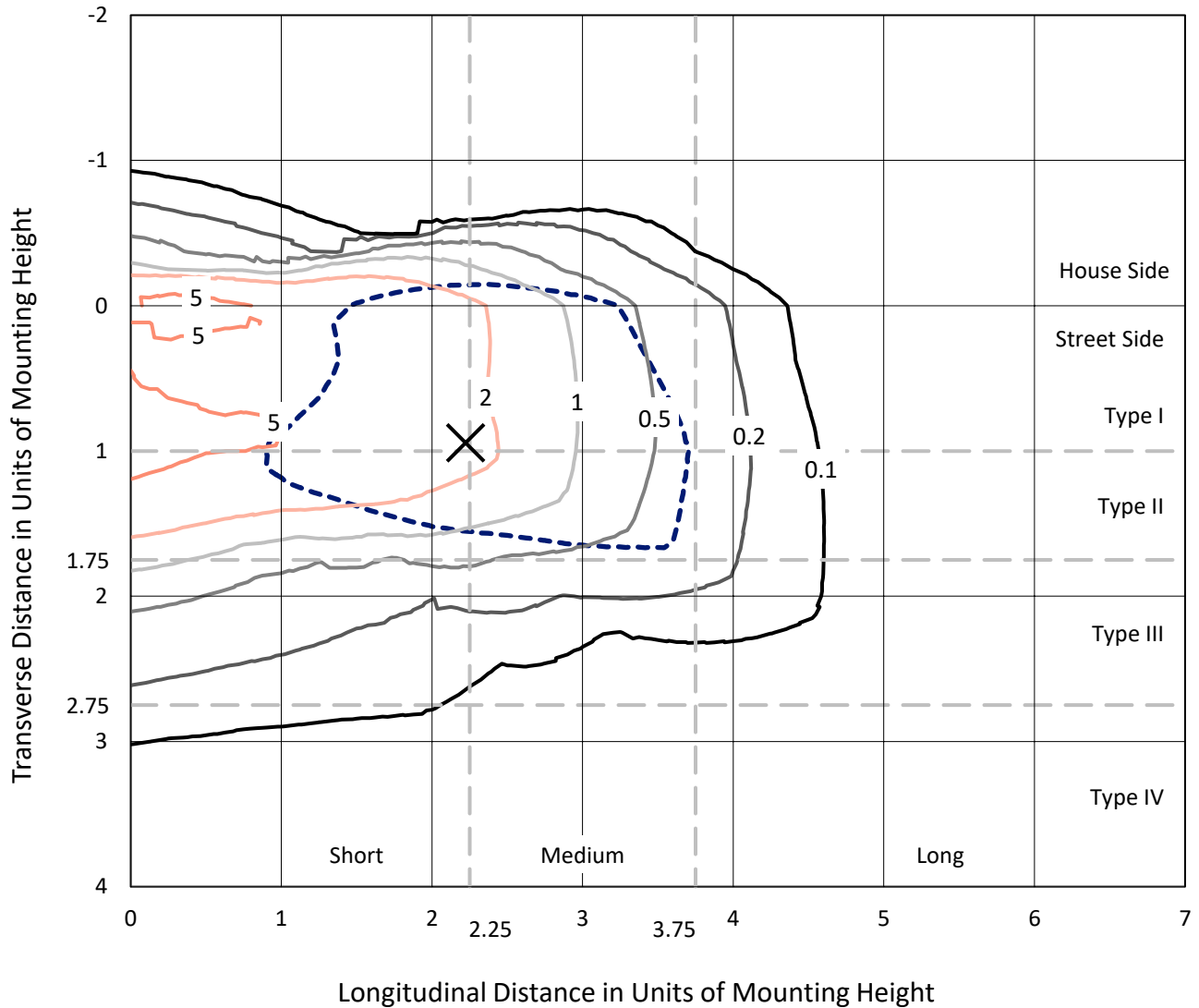
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

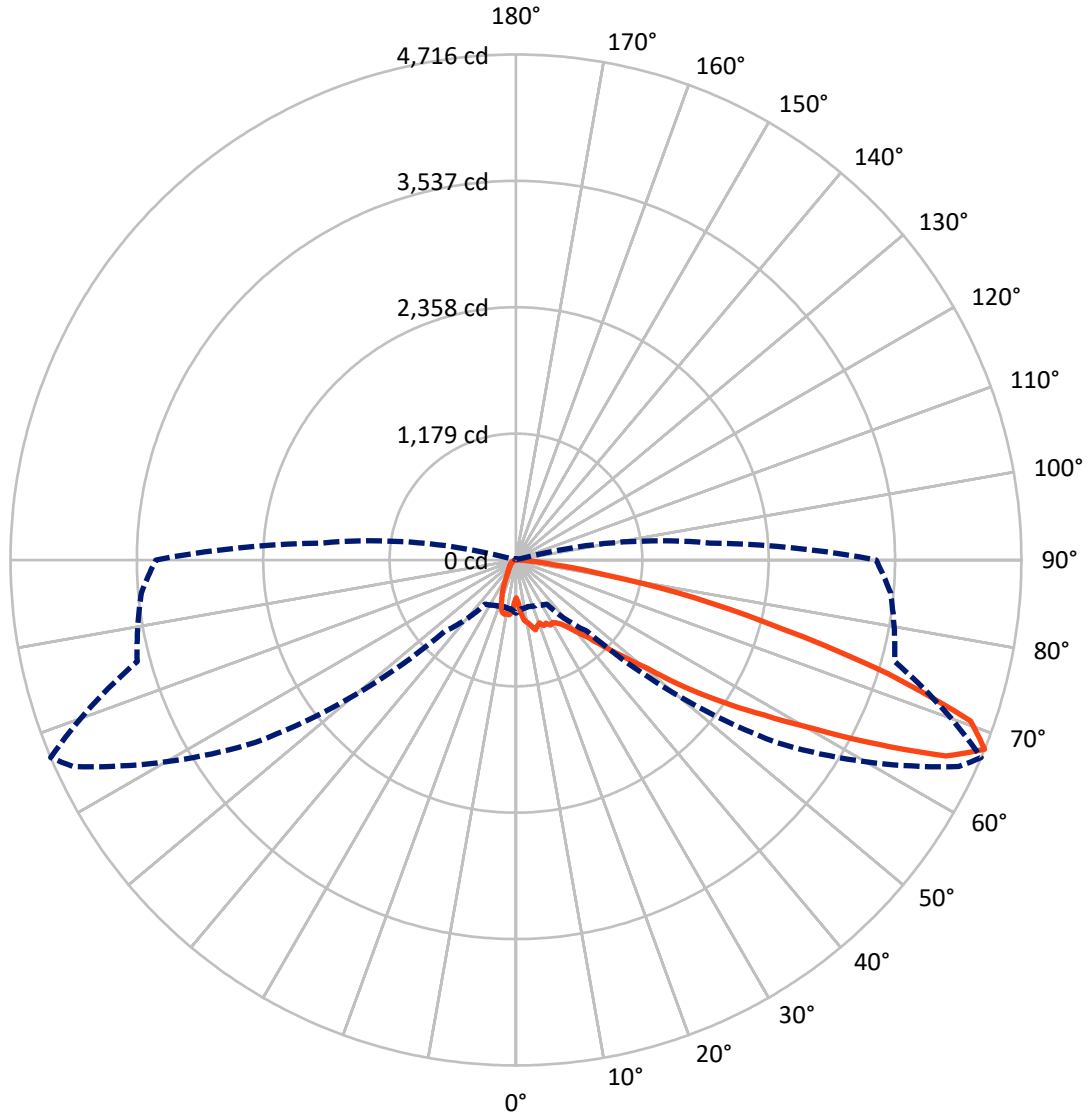
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.9 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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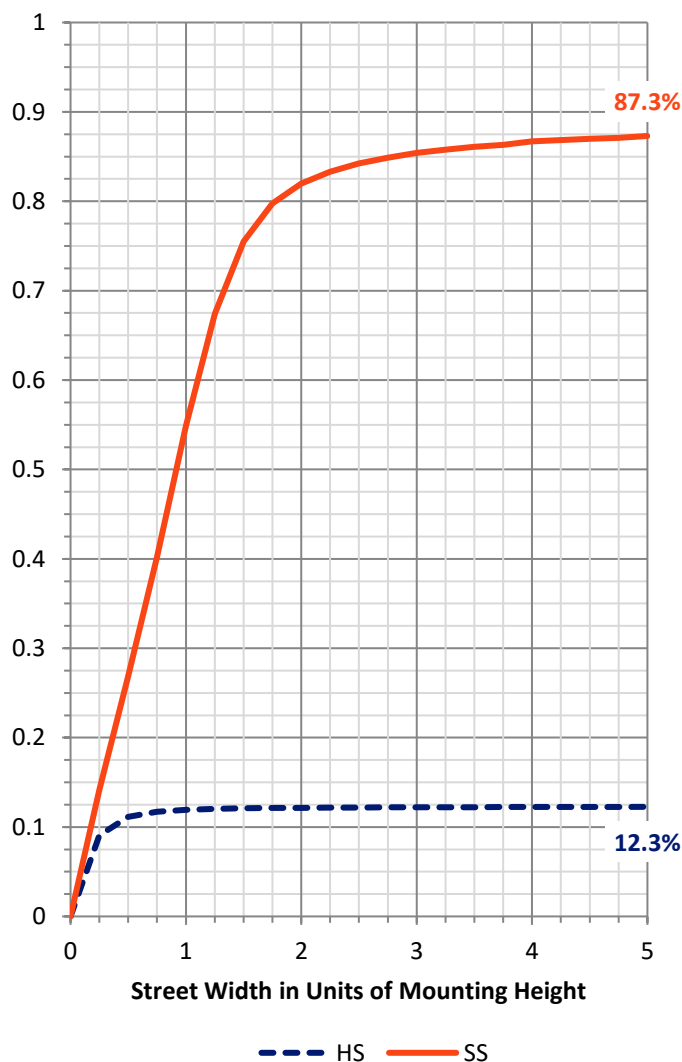
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	513.4	0.0	513.4
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	3637.6	0.0	3637.6
	% Fixture	87.6	0.0	87.6
Total	Lumens	4151.0	0.0	4151.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.4	1.1
10°-20°	131.3	3.2
20°-30°	205.8	5.0
30°-40°	331.8	8.0
40°-50°	609.7	14.7
50°-60°	1029.7	24.8
60°-70°	1138.4	27.4
70°-80°	595.8	14.4
80°-90°	64.0	1.5
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°	4151.0	100.0
0°-180°	4151.0	100.0

Coefficient of Utilization

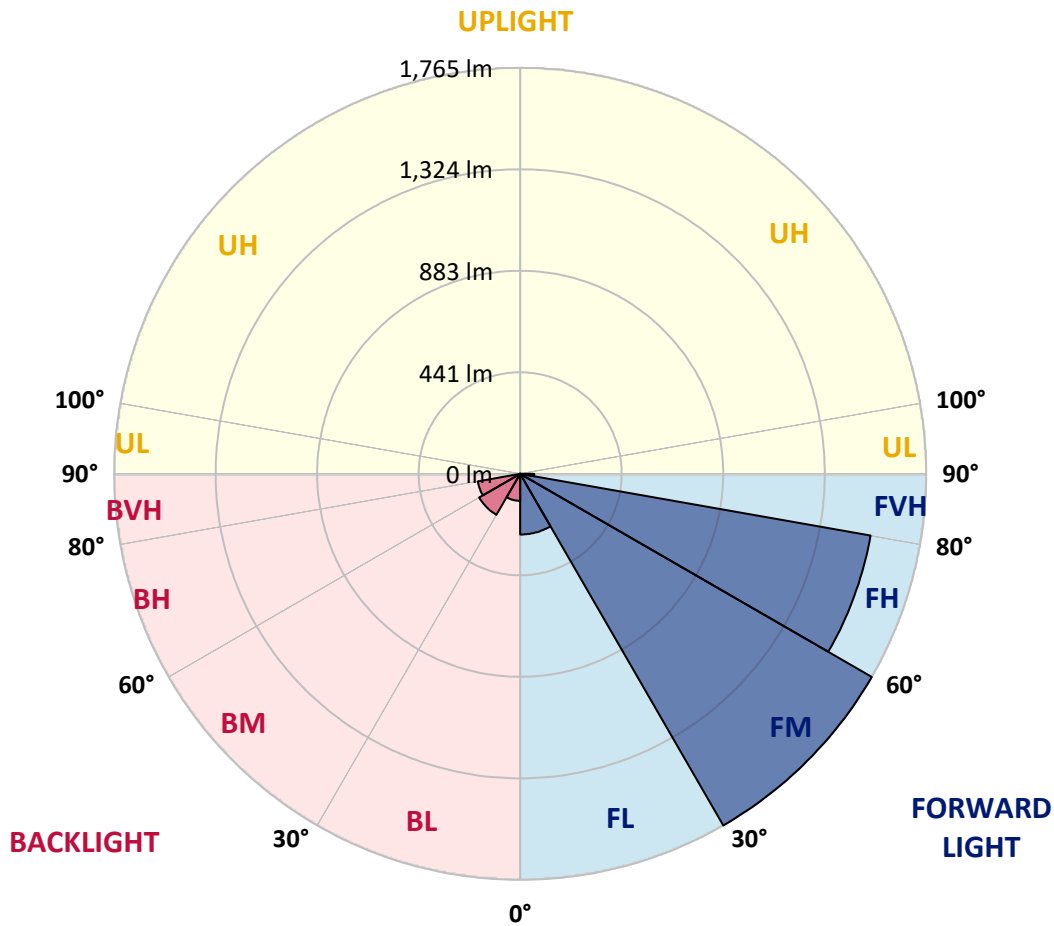


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	263.9	6.4			
FM (30°-60°)	1765.4	42.5			
FH (60°-80°)	1547.0	37.3			G1/1800
FVH (80°-90°)	61.3	1.5			G1/100
BL (0°-30°)	117.5	2.8	B1/500		
BM (30°-60°)	205.8	5.0	B0/220		
BH (60°-80°)	187.3	4.5	B1/500		G1/500
BVH (80°-90°)	2.7	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	353.5	353.5	353.5	353.5	353.5	353.5	353.5	353.5	353.5	353.5	353.5
2.5°	417.4	403.2	379.2	386.2	400.1	411.7	406.2	395.5	395.7	384.7	424.1
5°	485.6	466.6	452.7	457.6	456.9	456.5	482.4	492.3	496.5	514.6	541.4
7.5°	505.2	498.4	483.9	488.3	473.8	474.8	520.3	563.3	570.0	581.2	628.8
10°	497.6	484.5	489.8	489.8	490.0	513.6	544.1	585.2	593.4	636.3	641.4
12.5°	489.4	490.0	510.8	507.1	535.7	578.0	588.3	634.5	630.4	667.7	723.1
15°	519.9	535.9	522.4	527.7	530.4	580.1	596.8	658.0	675.7	722.9	758.9
17.5°	572.3	574.4	546.4	538.9	558.6	572.8	606.2	635.7	647.5	771.3	822.3
20°	581.8	595.3	566.9	523.1	565.0	584.3	607.7	621.8	626.9	786.3	858.1
22.5°	638.9	623.9	578.4	545.2	557.2	578.2	592.8	635.3	665.6	758.1	892.4
25°	668.1	664.1	620.8	592.3	580.1	578.4	611.7	643.9	653.6	787.3	900.8
27.5°	738.3	729.2	645.2	641.6	601.4	566.0	612.3	670.2	688.4	759.7	932.4
30°	833.7	830.3	718.5	716.2	652.1	588.5	646.5	686.5	675.5	773.8	953.5
32.5°	929.7	957.0	842.7	777.4	729.4	671.3	636.8	681.4	701.0	808.2	992.2
35°	1045.7	1065.5	949.0	901.7	794.9	710.0	701.0	729.6	738.1	849.0	1036.2
37.5°	1248.7	1218.8	1119.6	1039.0	982.9	848.4	803.7	781.0	800.6	904.4	1126.1
40°	1398.6	1379.7	1257.5	1209.3	1080.4	1001.7	885.0	863.8	885.7	961.3	1188.7
42.5°	1579.5	1540.1	1425.1	1392.5	1259.8	1108.0	989.7	997.1	983.4	1073.5	1298.4
45°	1743.1	1654.2	1590.2	1597.6	1526.9	1321.8	1164.2	1160.7	1149.3	1236.1	1413.8
47.5°	1853.2	1775.5	1713.2	1692.8	1684.4	1697.6	1416.5	1352.9	1344.5	1406.8	1595.5
50°	1912.4	1827.3	1750.3	1754.5	1925.5	2054.1	1676.8	1586.4	1589.6	1654.7	1844.0
52.5°	1872.6	1776.4	1695.1	1774.1	2112.4	2291.9	2107.6	1891.6	1964.8	1948.2	2177.3
55°	1688.8	1605.2	1547.5	1688.8	2132.9	2547.7	2638.0	2350.8	2334.4	2296.5	2517.2
57.5°	1379.5	1307.4	1271.8	1420.9	1909.5	2753.8	3170.8	2869.9	2729.8	2571.1	2799.3
60°	1027.8	974.7	937.7	1016.4	1504.5	2553.6	3519.7	3359.0	3196.9	2835.8	3052.9
62.5°	761.2	718.0	678.7	685.8	1036.0	2196.3	3653.6	3877.2	3784.2	3115.2	3292.1
65°	607.5	568.1	540.5	524.7	641.6	1652.4	3467.3	4302.0	4409.4	3378.4	3464.7
67.5°	496.1	462.8	449.1	467.3	503.3	941.9	2969.5	4559.7	4715.5	3657.6	3507.3
70°	403.7	376.3	374.8	423.7	463.5	574.2	2184.3	4381.8	4499.1	3705.2	3252.3
72.5°	281.3	269.3	288.5	357.8	459.3	478.2	1254.4	3626.0	3630.2	3272.5	2675.1
75°	159.2	157.3	187.6	285.3	447.3	473.4	699.3	2562.4	2564.3	2475.1	1853.2
77.5°	87.6	81.9	109.3	192.9	384.1	462.4	451.0	1749.6	1704.8	1377.3	846.5
80°	40.4	38.1	59.2	123.6	280.9	437.4	361.6	961.7	867.1	448.7	206.6
82.5°	16.6	15.8	27.2	79.4	177.5	352.3	304.7	426.6	342.4	85.3	63.8
85°	2.9	3.2	11.2	48.0	99.4	162.4	247.0	202.6	148.9	23.6	35.0
87.5°	0.0	0.0	2.3	11.6	24.0	44.4	100.2	56.6	39.0	6.9	10.3
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°	353.5	353.5	353.5	353.5	353.5	353.5	353.5	353.5	353.5	353.5	353.5
2.5°	431.9	428.3	392.1	393.8	396.3	394.0	393.6	383.4	374.2	404.7	404.3
5°	546.2	520.7	495.7	486.0	465.2	437.8	438.0	429.4	420.5	432.9	432.9
7.5°	627.7	592.5	560.8	504.1	448.9	399.0	394.6	382.8	369.3	385.6	388.7
10°	646.7	616.1	575.1	491.9	439.7	391.0	337.5	293.5	273.1	263.6	262.0
12.5°	705.0	682.3	590.4	498.4	423.2	340.9	253.3	201.1	165.5	162.8	159.0
15°	743.9	727.9	605.6	482.2	353.8	245.1	159.2	122.1	107.8	106.5	104.7
17.5°	804.4	776.6	591.1	430.6	276.7	161.7	107.0	96.4	98.1	101.9	99.0
20°	829.0	774.7	559.5	355.9	194.4	108.4	92.9	87.2	91.6	95.2	93.5
22.5°	854.3	780.2	531.5	293.3	127.0	89.7	82.8	79.8	80.2	83.8	84.0
25°	854.1	795.3	499.1	228.5	94.5	79.8	74.8	71.0	69.5	72.0	71.4
27.5°	895.6	777.8	439.9	169.5	83.2	71.4	66.5	61.9	56.6	59.2	59.2
30°	895.8	806.3	398.6	121.7	76.2	63.6	59.4	52.2	46.1	48.2	48.4
32.5°	919.6	781.6	360.5	93.1	70.8	59.0	49.7	43.2	39.6	40.9	40.9
35°	946.7	802.7	302.0	82.1	65.3	52.4	42.5	37.3	34.5	35.6	35.6
37.5°	1036.4	798.3	261.3	76.4	61.7	47.4	38.7	32.8	31.6	32.2	33.1
40°	1068.9	829.6	206.1	73.1	55.8	42.7	34.1	29.7	28.0	28.4	28.6
42.5°	1151.4	836.6	164.7	70.3	50.5	37.1	30.3	27.2	25.1	25.1	25.7
45°	1242.6	854.1	131.0	68.0	46.1	33.3	27.4	24.8	21.7	21.3	22.1
47.5°	1374.6	921.0	106.8	63.4	40.9	31.0	25.3	21.5	19.0	18.1	19.0
50°	1595.5	1034.7	94.3	57.7	37.1	29.1	22.3	18.3	16.4	15.4	16.0
52.5°	1907.1	1231.2	87.8	52.4	33.7	26.1	20.0	16.0	14.1	13.3	13.7
55°	2253.3	1456.5	84.6	47.2	30.7	23.0	17.5	14.1	12.4	11.4	11.6
57.5°	2573.4	1668.4	81.5	42.1	27.8	20.4	15.4	12.4	10.7	9.7	9.9
60°	2888.8	1837.4	73.9	36.2	25.1	18.3	13.5	10.7	9.7	8.4	8.4
62.5°	3167.8	1938.5	63.0	31.4	22.5	16.2	12.0	9.7	8.8	7.6	7.6
65°	3357.8	1943.1	50.7	27.0	19.8	13.9	10.5	9.1	8.2	6.7	6.5
67.5°	3360.5	1816.8	40.6	24.0	17.5	12.2	9.5	8.6	7.6	6.3	5.9
70°	3007.8	1501.0	33.9	21.1	15.2	10.7	8.2	8.2	7.4	6.1	5.5
72.5°	2406.0	1147.0	28.4	18.3	13.5	9.3	7.6	7.8	7.2	6.1	5.5
75°	1617.2	657.8	23.6	15.6	11.8	7.8	7.4	7.6	7.4	6.1	5.3
77.5°	744.8	209.5	18.3	12.8	10.1	6.5	7.2	7.2	6.7	5.5	4.6
80°	167.8	51.6	13.3	9.5	8.2	4.8	6.5	5.9	5.3	3.8	2.7
82.5°	61.1	15.8	8.0	5.9	5.1	1.9	4.2	4.2	3.8	2.7	1.7
85°	35.0	8.2	4.4	3.8	2.7	0.8	2.3	2.5	2.1	1.9	0.8
87.5°	11.4	1.9	2.1	2.3	2.1	0.4	0.8	0.8	0.6	0.4	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)