

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: P596863

Luminaire Tested: **MSA-SA1B-835-U-T2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596863
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-9)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-835-U-T2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3149 lumens
Efficiency: N/A
Efficacy: 71.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B0 - U0 - G1

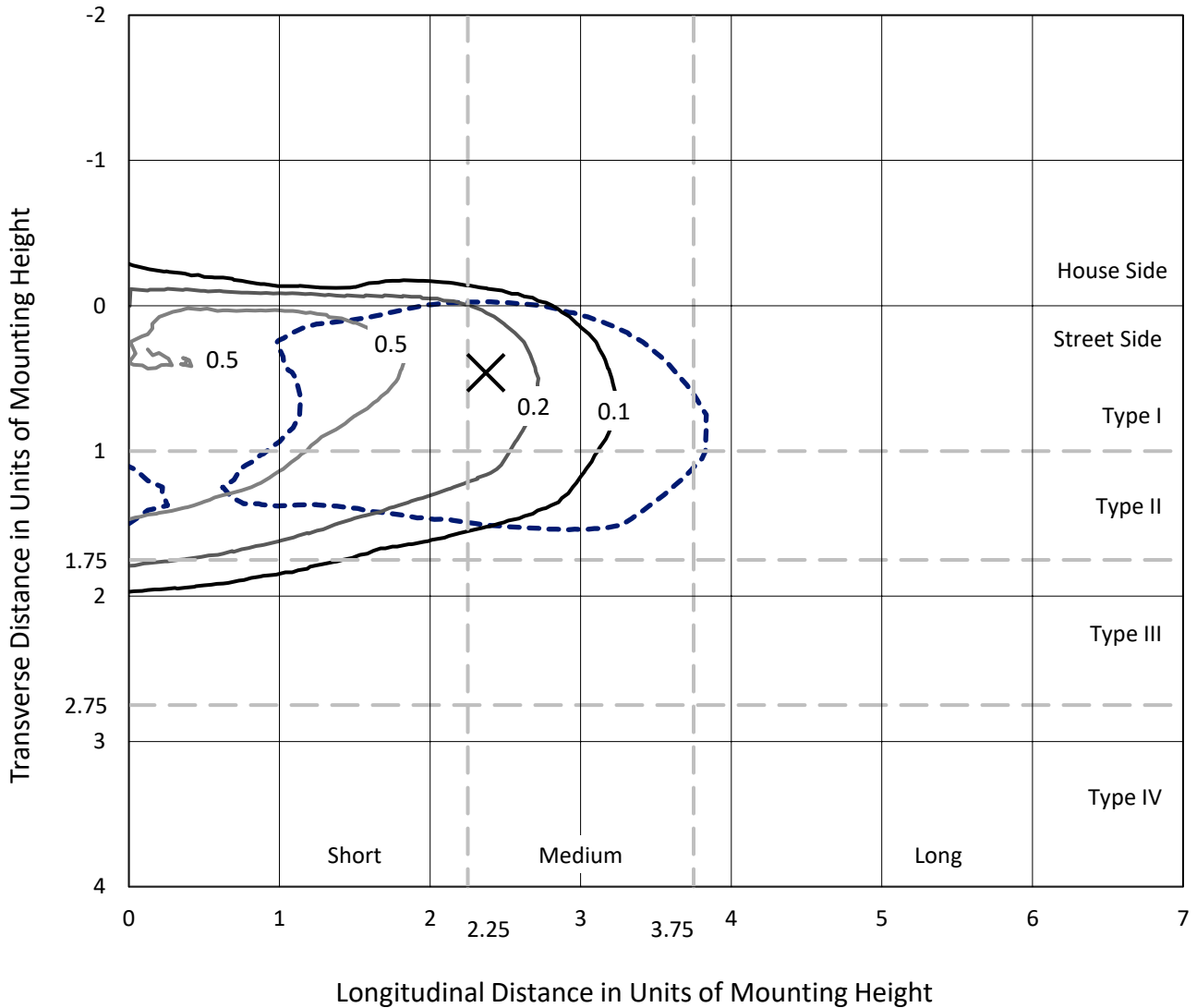
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

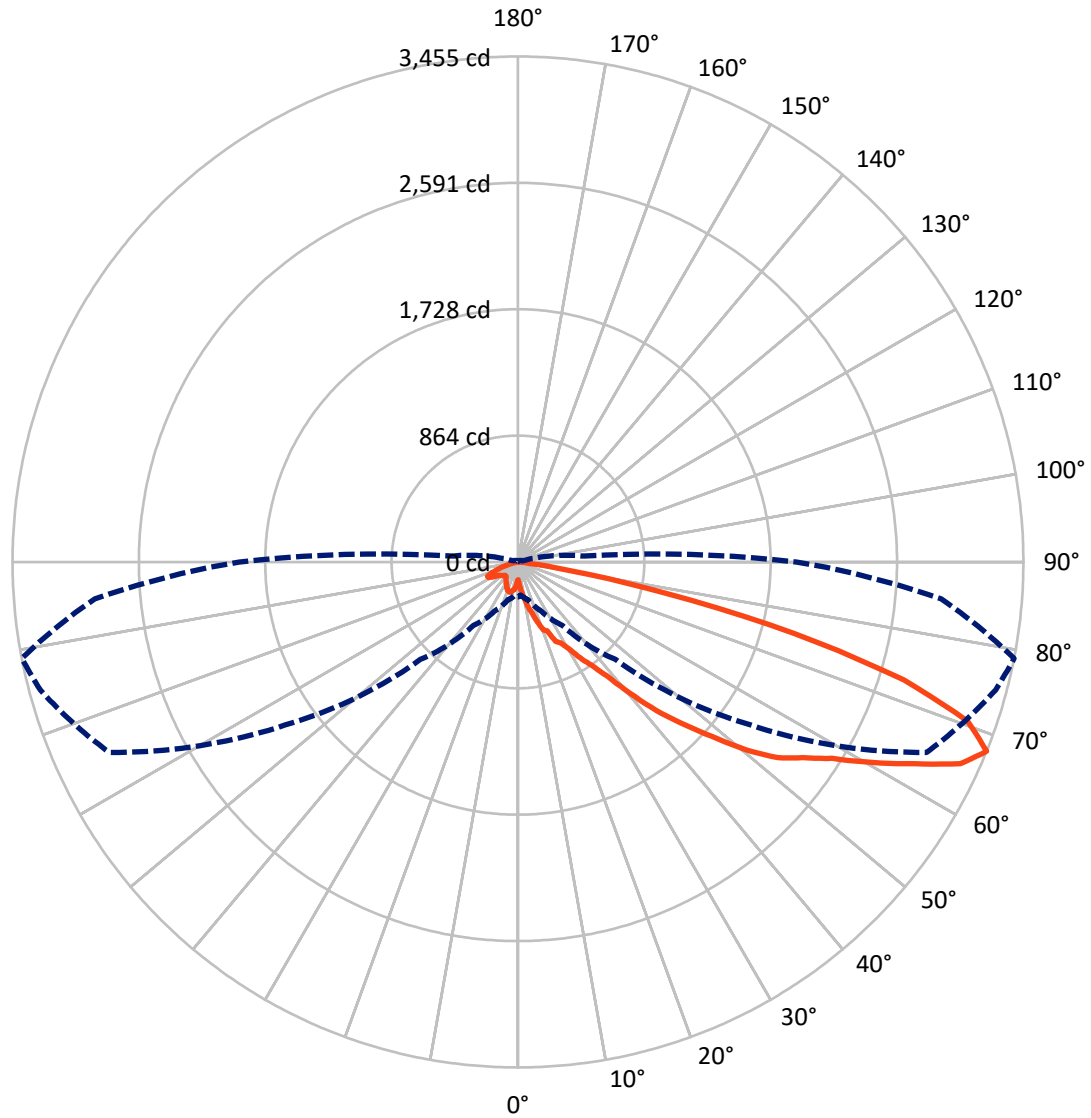
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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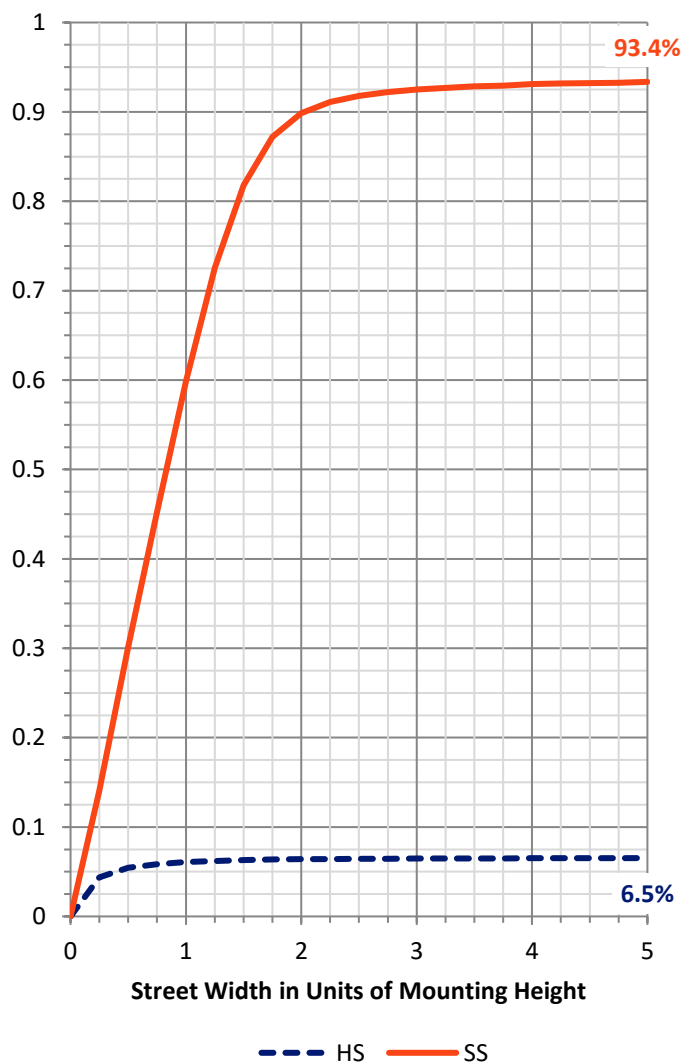
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	206.9	0.0	206.9
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	2942.1	0.0	2942.1
	% Fixture	93.4	0.0	93.4
Total	Lumens	3149.0	0.0	3149.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.6	0.6
10°-20°	70.4	2.2
20°-30°	135.7	4.3
30°-40°	266.7	8.5
40°-50°	534.2	17.0
50°-60°	853.8	27.1
60°-70°	859.1	27.3
70°-80°	387.6	12.3
80°-90°	24.0	0.8
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°	3149.0	100.0
0°-180°	3149.0	100.0

Coefficient of Utilization



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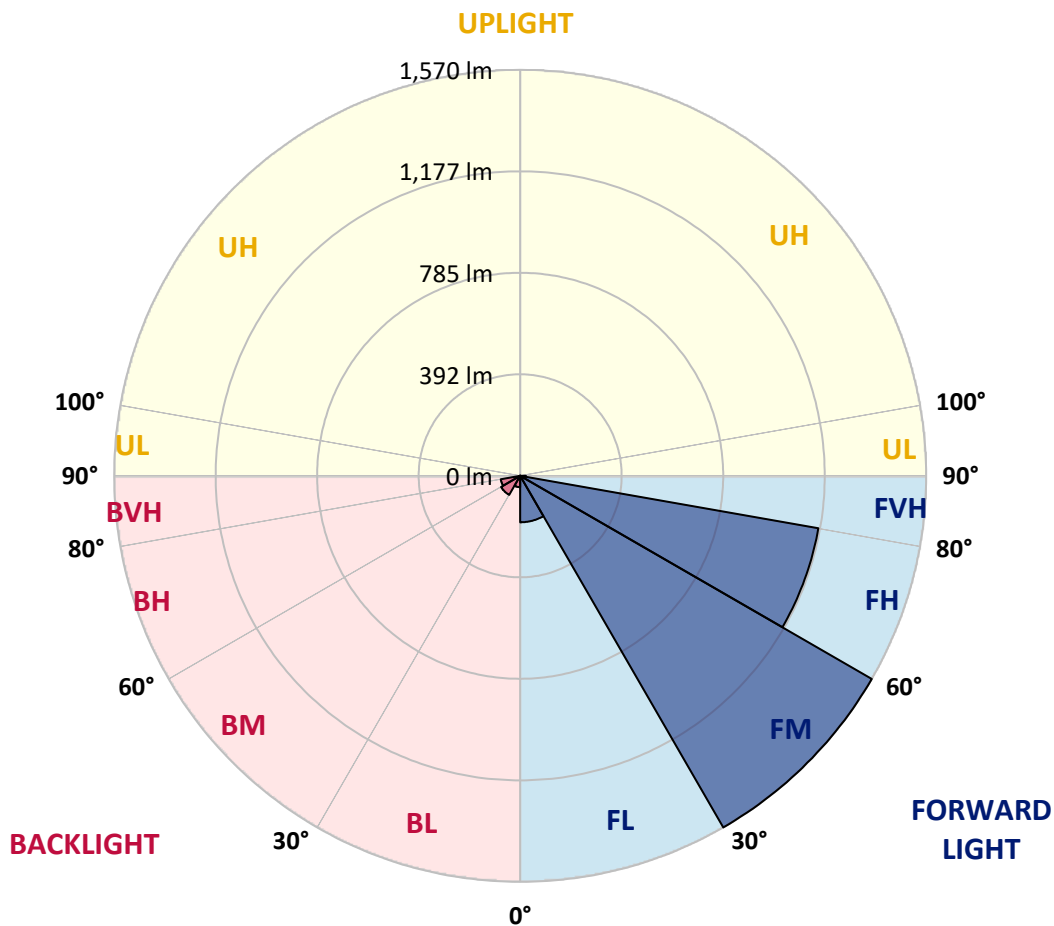
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	179.8	5.7			
FM (30°-60°)	1569.5	49.8			
FH (60°-80°)	1170.4	37.2			G1/1800
FVH (80°-90°)	22.4	0.7			G1/100
BL (0°-30°)	44.0	1.4	B0/110		
BM (30°-60°)	85.1	2.7	B0/220		
BH (60°-80°)	76.3	2.4	B0/110		G0/110
BVH (80°-90°)	1.5	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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3
2.5°	163.9	158.0	148.4	153.8	153.5	156.2	151.0	145.3	136.1	145.3	146.0
5°	235.9	225.0	218.0	216.6	209.0	201.9	200.3	194.4	189.9	181.7	189.0
7.5°	293.9	288.9	276.5	275.1	256.4	246.0	249.3	246.7	229.5	221.0	228.1
10°	318.5	309.9	311.6	309.9	301.9	304.8	298.1	290.2	276.5	262.5	244.8
12.5°	328.1	326.7	341.1	339.4	358.1	380.7	365.6	352.6	320.8	317.3	293.2
15°	348.6	357.2	355.2	362.5	374.4	412.8	412.4	415.6	381.9	363.8	329.0
17.5°	366.8	373.2	362.8	371.1	403.8	427.0	458.1	446.0	449.8	431.4	377.4
20°	359.0	366.3	355.9	350.8	408.3	452.4	493.9	485.0	507.9	496.5	422.0
22.5°	407.8	394.0	367.8	351.5	394.4	451.9	506.5	543.5	539.5	511.4	463.5
25°	468.0	459.7	428.2	399.4	403.2	448.7	546.5	600.8	612.6	600.6	502.9
27.5°	549.2	547.3	483.1	470.6	433.5	435.0	552.7	673.0	646.1	627.4	548.9
30°	655.3	640.2	564.0	547.7	492.8	465.9	590.9	735.3	715.5	690.0	592.1
32.5°	769.3	771.6	674.4	620.6	576.5	544.6	575.8	764.5	801.5	780.8	646.1
35°	898.8	908.9	790.0	726.8	641.1	594.0	640.7	854.1	920.4	866.0	718.5
37.5°	1098.3	1098.0	959.1	833.2	770.9	719.9	748.9	935.5	1066.5	990.2	848.3
40°	1273.8	1235.6	1106.5	961.9	864.7	850.8	829.8	1046.9	1222.6	1176.6	963.8
42.5°	1404.9	1378.0	1221.9	1109.4	988.9	944.8	937.4	1210.3	1452.9	1388.5	1128.5
45°	1561.6	1473.4	1358.5	1257.1	1134.4	1121.6	1104.0	1376.0	1721.0	1575.8	1271.7
47.5°	1702.0	1619.1	1510.4	1380.2	1239.3	1345.1	1277.8	1521.7	1915.9	1779.6	1429.7
50°	1820.3	1732.1	1610.4	1511.3	1450.9	1522.7	1410.4	1641.6	2126.5	2016.1	1577.4
52.5°	1880.5	1780.7	1686.6	1625.3	1662.3	1646.2	1590.3	1786.9	2306.0	2223.3	1708.3
55°	1831.0	1733.5	1694.1	1724.4	1836.8	1790.1	1794.6	2012.1	2475.4	2361.5	1822.2
57.5°	1611.6	1522.6	1540.1	1623.2	1838.5	1960.7	2027.5	2230.8	2611.3	2533.7	1997.8
60°	1219.1	1147.4	1212.4	1359.9	1665.6	1926.7	2192.8	2449.5	2805.6	2781.3	2263.8
62.5°	744.5	705.6	797.6	981.6	1327.3	1759.9	2289.1	2741.2	3013.3	3039.2	2545.9
65°	379.8	362.3	439.0	600.8	896.8	1445.7	2219.5	2922.4	3228.1	3323.5	2814.8
67.5°	239.2	227.9	268.9	366.4	529.1	942.9	1943.3	3080.9	3379.8	3455.3	2904.5
70°	165.8	158.7	194.1	251.5	333.8	507.9	1442.9	2933.0	3259.5	3263.0	2687.3
72.5°	105.2	99.6	134.2	186.3	246.3	262.3	827.2	2301.5	2790.1	2758.0	2176.3
75°	68.2	65.4	85.2	136.4	189.2	161.8	408.8	1552.9	2000.6	1950.3	1445.5
77.5°	49.0	47.2	57.1	91.1	134.7	113.2	183.3	925.6	1147.1	1037.0	701.6
80°	29.5	29.3	41.3	57.1	95.8	79.9	84.7	420.3	444.7	362.6	214.4
82.5°	14.8	15.3	23.1	36.8	61.6	52.3	38.7	139.9	119.4	88.0	43.4
85°	3.5	4.3	12.2	25.3	30.9	20.8	18.4	36.6	32.8	24.8	12.7
87.5°	0.0	0.0	3.8	6.1	8.3	3.5	6.2	6.9	8.9	6.9	2.6
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°	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3
2.5°	146.2	144.1	131.4	128.1	127.8	124.1	125.0	121.5	121.7	129.5	129.5
5°	186.3	174.1	162.0	151.2	143.9	133.5	129.7	128.1	126.7	129.8	131.8
7.5°	218.7	200.8	179.0	155.5	133.8	118.9	116.8	113.0	111.6	114.7	117.2
10°	233.1	210.9	180.9	146.7	126.4	114.2	104.2	98.8	97.7	97.6	98.4
12.5°	263.7	236.1	183.0	143.4	121.3	108.0	96.5	87.5	79.2	80.0	79.2
15°	288.2	255.5	183.0	135.4	109.2	95.8	75.7	71.2	70.0	71.9	70.3
17.5°	325.1	274.8	173.8	121.2	98.8	74.5	66.8	66.5	68.9	71.7	70.0
20°	347.4	277.4	158.3	104.8	81.1	64.6	61.8	59.0	62.5	64.7	63.9
22.5°	370.4	277.6	142.9	96.2	65.3	58.8	54.3	52.1	52.6	54.7	55.0
25°	380.3	270.8	128.5	84.7	59.2	52.6	47.9	45.5	44.6	45.7	45.3
27.5°	407.2	257.8	112.8	72.2	56.2	46.7	42.4	39.4	36.8	38.5	38.9
30°	411.1	253.6	104.3	64.2	52.4	41.3	37.5	34.4	32.5	34.9	34.9
32.5°	423.2	230.7	100.0	60.9	48.4	38.2	33.0	30.7	30.4	31.9	32.1
35°	442.0	220.6	93.6	58.3	44.8	34.5	29.7	28.6	28.3	29.5	29.5
37.5°	505.5	208.1	86.4	56.1	41.7	32.6	28.8	27.1	27.3	28.3	29.0
40°	547.7	209.7	75.9	53.3	38.0	30.9	27.1	25.9	25.7	26.2	26.7
42.5°	626.0	210.9	71.2	50.3	35.2	28.8	25.3	24.5	23.8	24.3	24.8
45°	713.5	217.3	68.7	47.9	33.7	27.6	23.8	23.3	21.7	22.0	22.7
47.5°	797.8	240.8	65.8	44.4	32.3	26.9	22.2	21.0	20.0	19.8	20.5
50°	893.6	263.5	62.5	40.6	30.9	25.9	20.7	18.7	18.1	18.1	18.6
52.5°	979.4	285.2	59.4	38.0	29.9	24.0	19.3	17.4	16.8	16.8	17.5
55°	1069.7	307.9	56.6	35.6	28.5	22.0	18.1	16.3	16.1	15.8	16.3
57.5°	1229.0	357.6	53.1	33.5	26.6	20.5	17.0	15.3	14.9	14.4	14.9
60°	1461.1	433.8	48.6	31.4	24.3	19.4	16.1	14.1	13.5	12.7	12.8
62.5°	1688.0	495.4	43.4	28.8	22.2	18.4	14.8	12.7	11.8	10.8	10.9
65°	1882.4	519.7	37.8	25.7	20.1	16.0	12.8	11.1	9.9	8.5	8.3
67.5°	1905.3	459.0	32.5	22.7	18.1	13.5	10.9	9.9	8.0	6.8	6.4
70°	1714.7	342.0	27.1	20.1	15.6	11.5	9.4	8.7	7.5	6.4	5.9
72.5°	1365.5	252.4	22.7	17.9	13.7	9.7	8.0	8.2	7.5	6.2	5.6
75°	903.0	144.4	18.6	14.9	11.5	7.8	7.3	7.3	7.1	5.9	5.2
77.5°	434.5	62.3	14.2	11.8	9.2	5.9	6.6	6.6	6.8	5.4	4.3
80°	123.2	18.7	8.9	8.0	6.8	4.0	5.2	5.0	4.5	3.1	1.9
82.5°	22.0	7.3	4.0	4.2	3.8	1.6	3.0	2.8	2.3	1.2	0.2
85°	6.1	2.8	2.3	2.4	1.9	0.5	1.2	1.6	1.2	0.7	0.0
87.5°	1.6	1.2	1.6	1.7	1.4	0.2	0.5	0.2	0.5	0.2	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)