

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: P366767

Luminaire Tested: **MSA-SA1B-730-U-T2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366767
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-9)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-730-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: 3479 lumens
Efficiency: N/A
Efficacy: 79.1 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

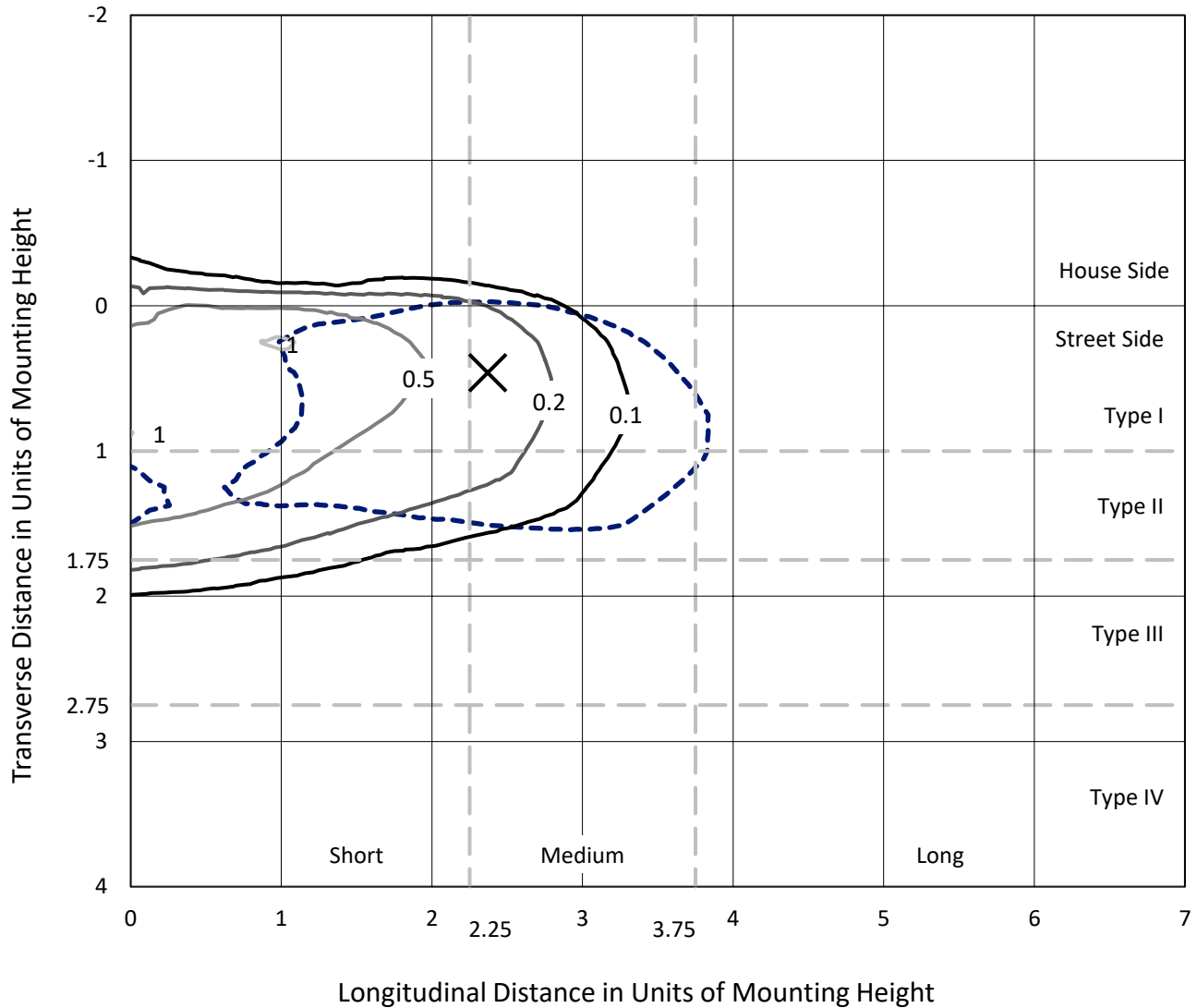
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

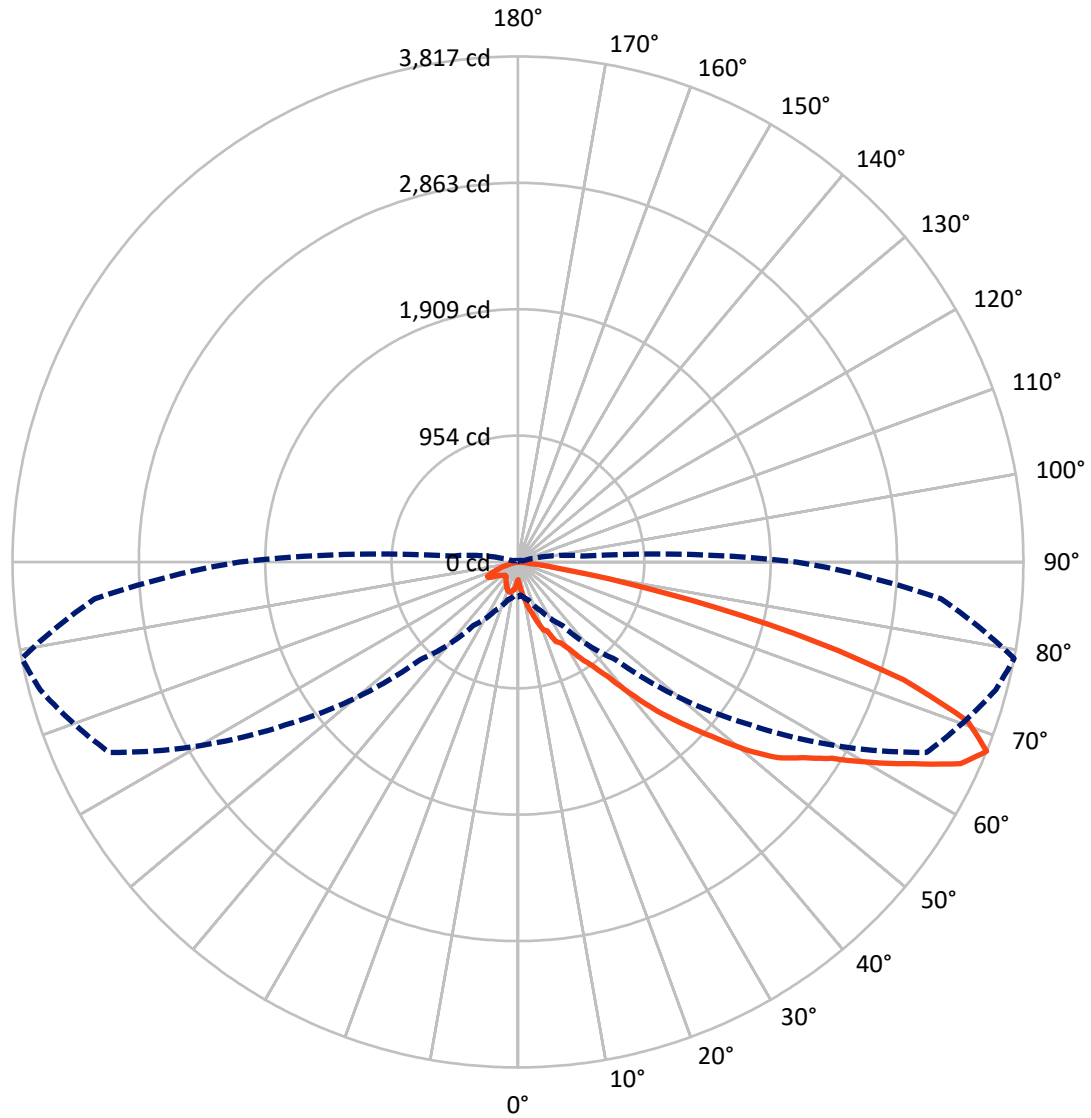
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 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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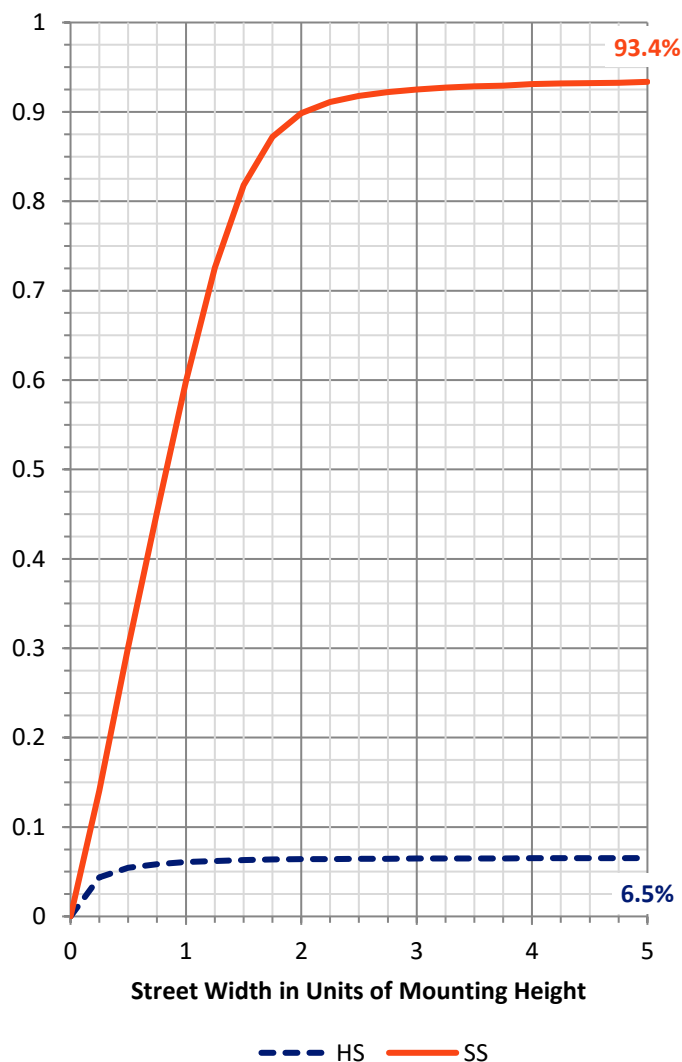
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	228.6	0.0	228.6
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	3250.4	0.0	3250.4
	% Fixture	93.4	0.0	93.4
Total	Lumens	3479.0	0.0	3479.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.5	0.6
10°-20°	77.7	2.2
20°-30°	150.0	4.3
30°-40°	294.6	8.5
40°-50°	590.2	17.0
50°-60°	943.3	27.1
60°-70°	949.1	27.3
70°-80°	428.2	12.3
80°-90°	26.5	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°	3479.0	100.0
0°-180°	3479.0	100.0

Coefficient of Utilization



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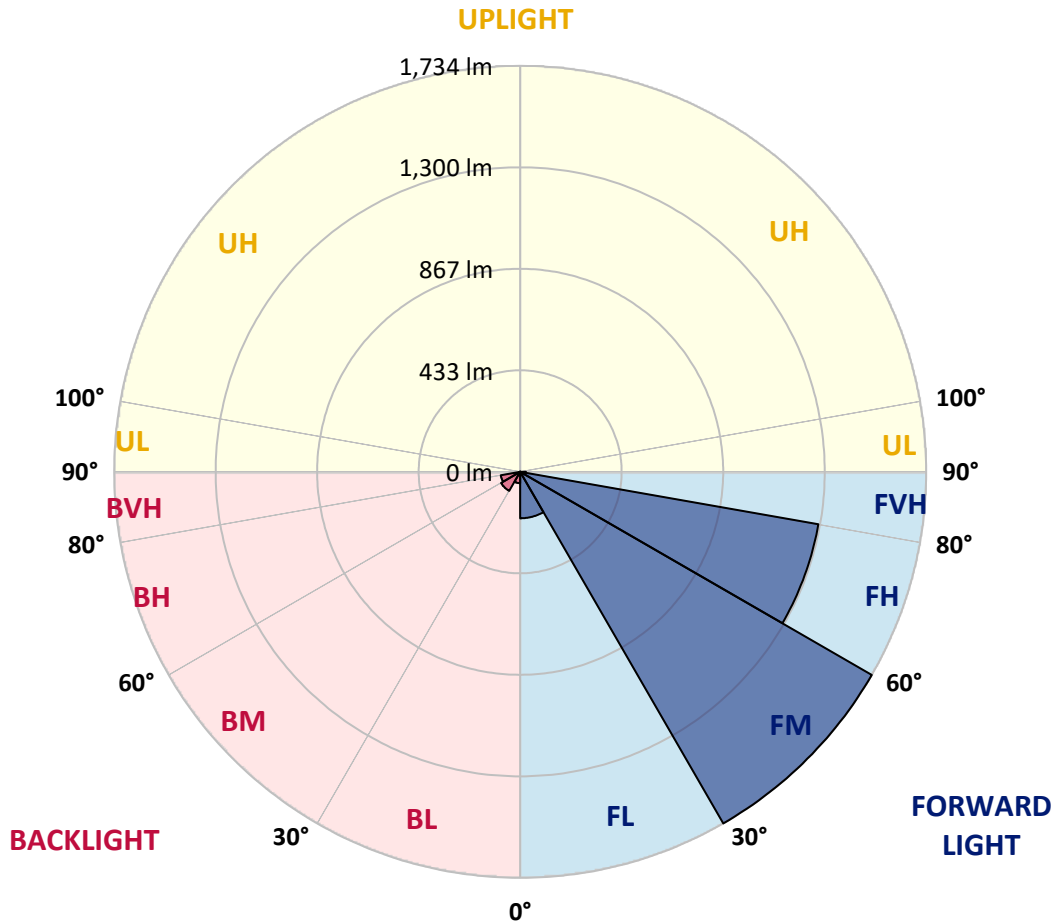
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	198.6	5.7			
FM (30°-60°)	1734.0	49.8			
FH (60°-80°)	1293.0	37.2			G1/1800
FVH (80°-90°)	24.8	0.7			G1/100
BL (0°-30°)	48.6	1.4	B0/110		
BM (30°-60°)	94.0	2.7	B0/220		
BH (60°-80°)	84.3	2.4	B0/110		G0/110
BVH (80°-90°)	1.7	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°	134.1	134.1	134.1	134.1	134.1	134.1	134.1	134.1	134.1	134.1	134.1
2.5°	181.0	174.5	164.0	169.9	169.5	172.6	166.8	160.5	150.4	160.5	161.3
5°	260.6	248.5	240.9	239.3	230.9	223.0	221.3	214.8	209.8	200.8	208.8
7.5°	324.7	319.1	305.5	304.0	283.3	271.8	275.4	272.5	253.5	244.1	252.0
10°	351.9	342.3	344.2	342.3	333.5	336.8	329.3	320.7	305.5	290.0	270.4
12.5°	362.5	360.9	376.8	374.9	395.6	420.6	403.9	389.5	354.4	350.6	323.9
15°	385.1	394.7	392.4	400.4	413.7	456.1	455.7	459.1	421.9	402.0	363.4
17.5°	405.2	412.3	400.8	410.0	446.1	471.8	506.1	492.7	496.9	476.6	416.9
20°	396.6	404.7	393.2	387.6	451.1	499.8	545.6	535.8	561.2	548.5	466.2
22.5°	450.5	435.3	406.4	388.4	435.7	499.2	559.6	600.5	596.1	565.0	512.1
25°	517.0	507.8	473.1	441.3	445.5	495.8	603.7	663.8	676.8	663.6	555.6
27.5°	606.8	604.7	533.7	519.9	478.9	480.6	610.6	743.5	713.8	693.1	606.4
30°	724.0	707.3	623.1	605.1	544.5	514.7	652.8	812.4	790.5	762.3	654.2
32.5°	850.0	852.5	745.1	685.6	636.9	601.6	636.1	844.6	885.5	862.6	713.8
35°	993.0	1004.2	872.8	803.0	708.2	656.3	707.9	943.6	1016.8	956.8	793.8
37.5°	1213.4	1213.0	1059.6	920.5	851.7	795.3	827.3	1033.5	1178.3	1093.9	937.2
40°	1407.3	1365.1	1222.4	1062.7	955.3	939.9	916.7	1156.6	1350.7	1299.9	1064.8
42.5°	1552.1	1522.4	1349.9	1225.7	1092.6	1043.9	1035.6	1337.1	1605.2	1534.1	1246.8
45°	1725.3	1627.8	1500.9	1388.9	1253.3	1239.1	1219.7	1520.2	1901.3	1741.0	1405.0
47.5°	1880.4	1788.7	1668.7	1524.9	1369.1	1486.1	1411.7	1681.2	2116.7	1966.1	1579.5
50°	2011.0	1913.6	1779.2	1669.6	1602.9	1682.3	1558.2	1813.7	2349.3	2227.3	1742.7
52.5°	2077.6	1967.3	1863.3	1795.6	1836.5	1818.7	1756.9	1974.2	2547.6	2456.3	1887.3
55°	2022.9	1915.1	1871.6	1905.2	2029.2	1977.6	1982.6	2222.9	2734.8	2609.0	2013.1
57.5°	1780.5	1682.1	1701.5	1793.3	2031.2	2166.2	2240.0	2464.6	2885.0	2799.2	2207.2
60°	1346.9	1267.7	1339.4	1502.4	1840.1	2128.6	2422.6	2706.2	3099.6	3072.7	2501.0
62.5°	822.5	779.6	881.2	1084.5	1466.4	1944.3	2529.0	3028.4	3329.1	3357.7	2812.7
65°	419.6	400.2	485.0	663.8	990.7	1597.2	2452.1	3228.6	3566.4	3671.8	3109.7
67.5°	264.3	251.8	297.1	404.8	584.5	1041.8	2147.0	3403.7	3734.0	3817.4	3208.9
70°	183.2	175.3	214.4	277.9	368.8	561.2	1594.1	3240.3	3601.1	3604.9	2969.0
72.5°	116.2	110.1	148.2	205.8	272.1	289.8	913.8	2542.6	3082.5	3047.0	2404.4
75°	75.4	72.3	94.2	150.7	209.0	178.7	451.6	1715.7	2210.3	2154.7	1597.0
77.5°	54.1	52.2	63.1	100.7	148.8	125.0	202.5	1022.6	1267.3	1145.7	775.2
80°	32.6	32.4	45.6	63.1	105.9	88.2	93.6	464.3	491.3	400.6	236.8
82.5°	16.3	16.9	25.5	40.7	68.1	57.7	42.8	154.6	131.9	97.2	47.9
85°	3.8	4.8	13.4	28.0	34.1	23.0	20.3	40.5	36.2	27.4	14.0
87.5°	0.0	0.0	4.2	6.7	9.2	3.8	6.9	7.7	9.8	7.7	2.9
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°	134.1	134.1	134.1	134.1	134.1	134.1	134.1	134.1	134.1	134.1	134.1
2.5°	161.5	159.2	145.2	141.5	141.2	137.1	138.1	134.2	134.4	143.1	143.1
5°	205.8	192.4	178.9	167.0	159.0	147.5	143.3	141.5	140.0	143.5	145.6
7.5°	241.6	221.9	197.7	171.8	147.9	131.4	129.1	124.8	123.3	126.8	129.5
10°	257.6	233.0	199.8	162.1	139.6	126.2	115.1	109.1	108.0	107.8	108.7
12.5°	291.3	260.8	202.1	158.4	134.1	119.3	106.6	96.7	87.5	88.4	87.5
15°	318.4	282.3	202.1	149.6	120.6	105.9	83.6	78.6	77.3	79.4	77.7
17.5°	359.2	303.6	192.0	133.9	109.1	82.3	73.8	73.5	76.1	79.2	77.3
20°	383.8	306.5	174.9	115.8	89.6	71.3	68.3	65.2	69.0	71.5	70.6
22.5°	409.3	306.7	157.8	106.2	72.1	65.0	60.0	57.5	58.1	60.4	60.8
25°	420.2	299.2	141.9	93.6	65.4	58.1	52.9	50.2	49.3	50.4	50.1
27.5°	449.9	284.8	124.7	79.8	62.1	51.6	46.8	43.5	40.7	42.6	43.0
30°	454.1	280.2	115.3	71.0	57.9	45.6	41.4	38.0	35.9	38.5	38.5
32.5°	467.6	254.9	110.5	67.3	53.5	42.2	36.4	33.9	33.6	35.3	35.5
35°	488.3	243.8	103.4	64.4	49.5	38.2	32.8	31.6	31.3	32.6	32.6
37.5°	558.5	229.9	95.5	61.9	46.0	36.1	31.8	29.9	30.1	31.3	32.0
40°	605.1	231.7	83.8	58.9	42.0	34.1	29.9	28.6	28.4	29.0	29.5
42.5°	691.6	233.0	78.6	55.6	38.9	31.8	28.0	27.0	26.3	26.8	27.4
45°	788.2	240.1	75.9	52.9	37.2	30.5	26.3	25.7	24.0	24.4	25.1
47.5°	881.4	266.0	72.7	49.1	35.7	29.7	24.5	23.2	22.1	21.9	22.6
50°	987.3	291.1	69.0	44.9	34.1	28.6	22.8	20.7	19.9	19.9	20.5
52.5°	1082.0	315.1	65.6	42.0	33.0	26.5	21.3	19.2	18.6	18.6	19.4
55°	1181.8	340.2	62.5	39.3	31.5	24.4	19.9	18.0	17.8	17.5	18.0
57.5°	1357.8	395.1	58.7	37.0	29.3	22.6	18.8	16.9	16.5	15.9	16.5
60°	1614.2	479.3	53.7	34.7	26.8	21.5	17.8	15.5	15.0	14.0	14.2
62.5°	1864.9	547.3	47.9	31.8	24.5	20.3	16.3	14.0	13.0	11.9	12.1
65°	2079.7	574.2	41.8	28.4	22.2	17.6	14.2	12.3	10.9	9.4	9.2
67.5°	2105.0	507.1	35.9	25.1	19.9	15.0	12.1	10.9	8.8	7.5	7.1
70°	1894.4	377.8	29.9	22.2	17.3	12.7	10.4	9.6	8.2	7.1	6.5
72.5°	1508.5	278.8	25.1	19.8	15.2	10.7	8.8	9.0	8.2	6.9	6.1
75°	997.6	159.6	20.5	16.5	12.7	8.6	8.1	8.1	7.9	6.5	5.8
77.5°	480.0	68.8	15.7	13.0	10.2	6.5	7.3	7.3	7.5	5.9	4.8
80°	136.2	20.7	9.8	8.8	7.5	4.4	5.8	5.6	5.0	3.5	2.1
82.5°	24.4	8.1	4.4	4.6	4.2	1.7	3.3	3.1	2.5	1.3	0.2
85°	6.7	3.1	2.5	2.7	2.1	0.6	1.3	1.7	1.3	0.8	0.0
87.5°	1.7	1.3	1.7	1.9	1.5	0.2	0.6	0.2	0.6	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)