

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: P366889

Luminaire Tested: **MSA-SA1C-730-U-SL2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366889
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-SA1C-730-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: 4682 lumens
Efficiency: N/A
Efficacy: 79.4 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

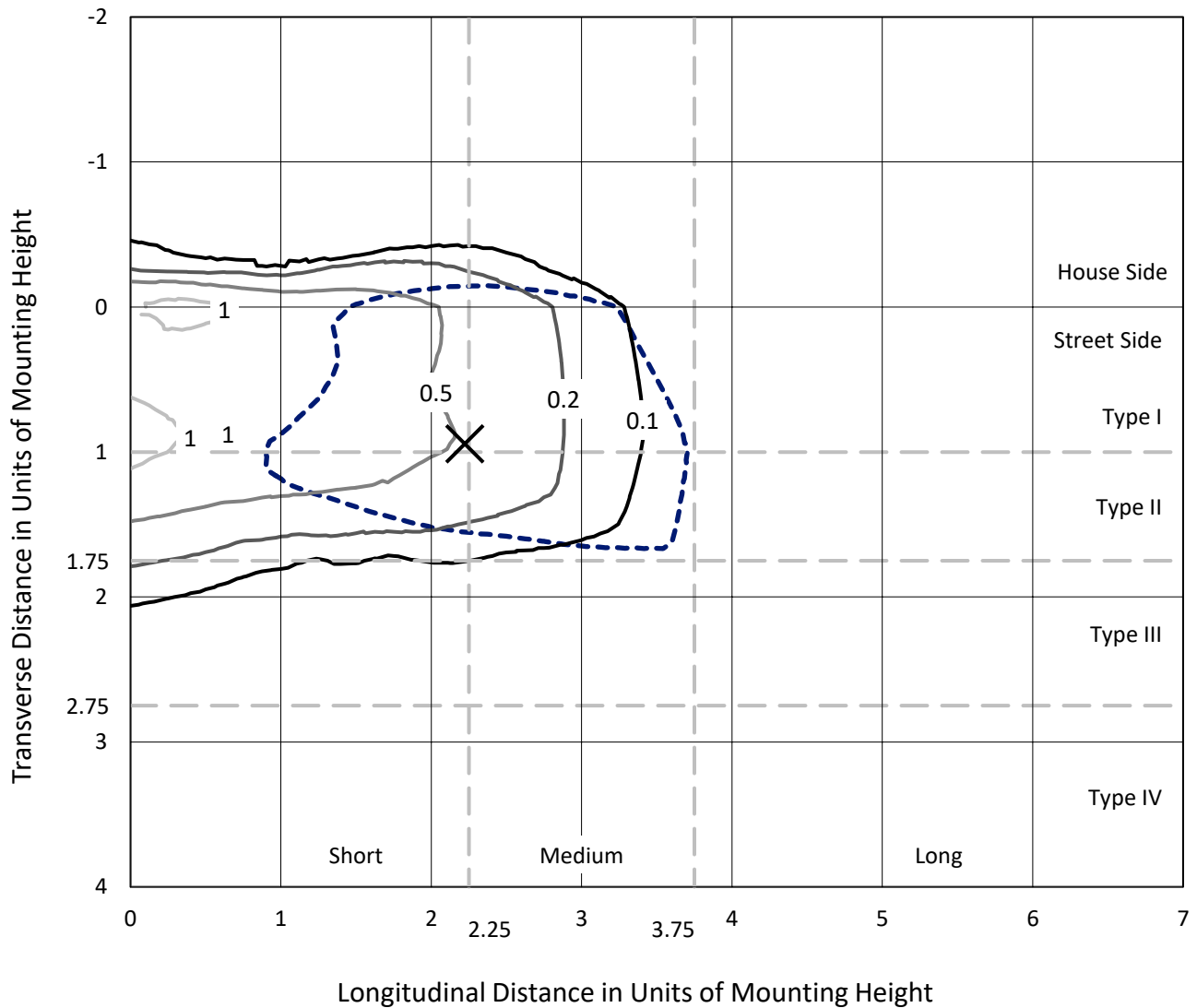
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

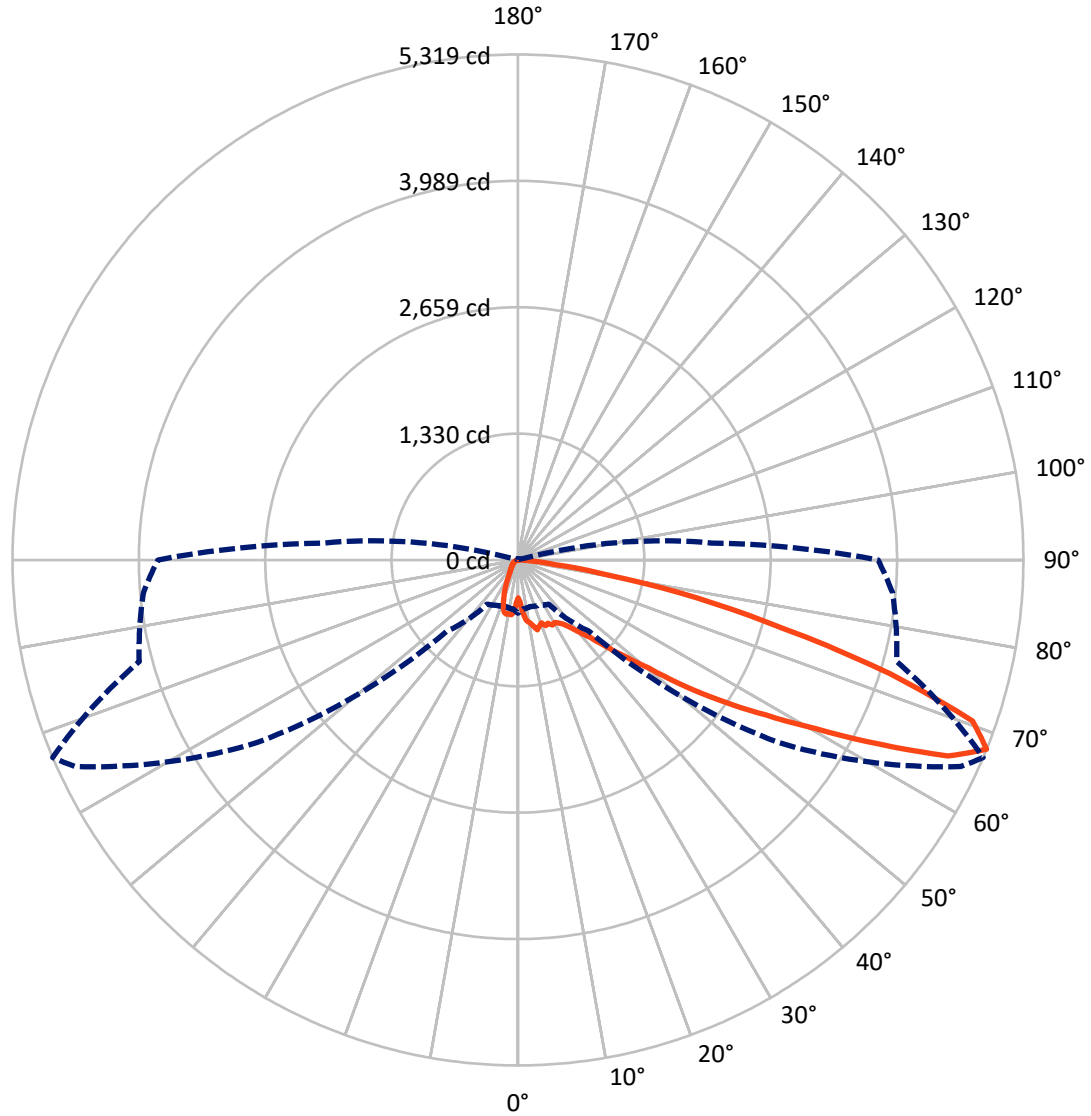
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 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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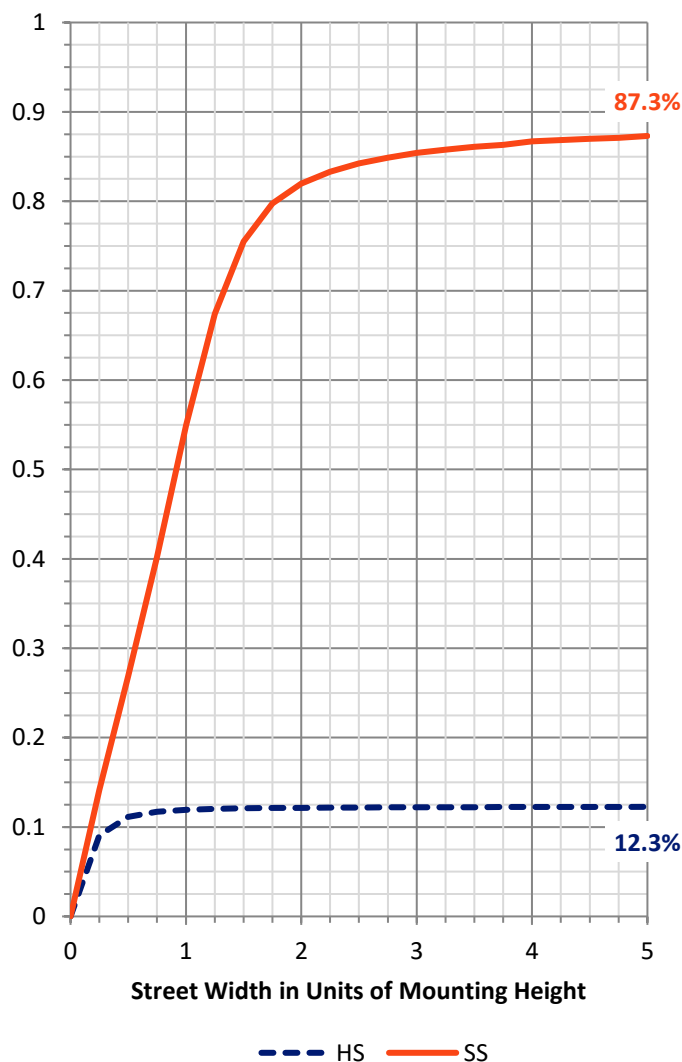
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	579.0	0.0	579.0
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	4103.0	0.0	4103.0
	% Fixture	87.6	0.0	87.6
Total	Lumens	4682.0	0.0	4682.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.1	1.1
10°-20°	148.1	3.2
20°-30°	232.1	5.0
30°-40°	374.3	8.0
40°-50°	687.7	14.7
50°-60°	1161.5	24.8
60°-70°	1284.0	27.4
70°-80°	672.1	14.4
80°-90°	72.2	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°	4682.0	100.0
0°-180°	4682.0	100.0

Coefficient of Utilization

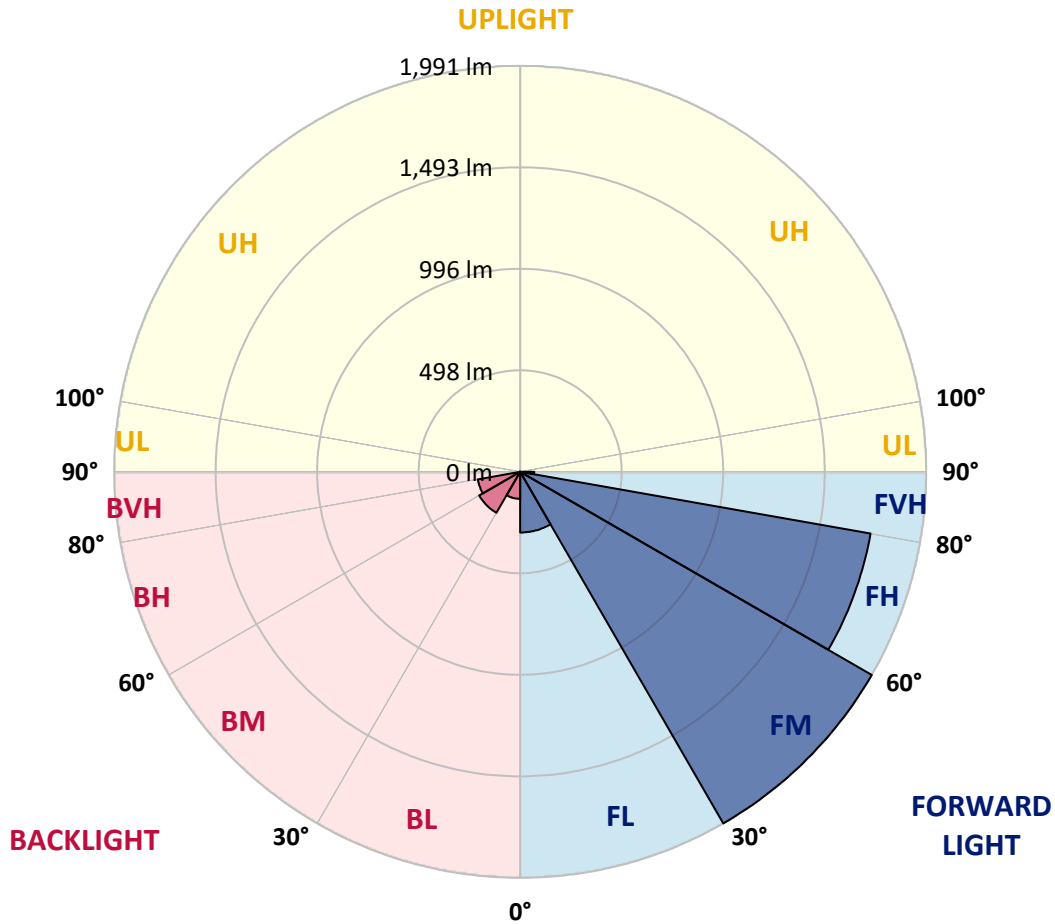


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	297.7	6.4			
FM (30°-60°)	1991.3	42.5			
FH (60°-80°)	1744.9	37.3			G1/1800
FVH (80°-90°)	69.1	1.5			G1/100
BL (0°-30°)	132.6	2.8	B1/500		
BM (30°-60°)	232.2	5.0	B1/1000		
BH (60°-80°)	211.2	4.5	B1/500		G1/500
BVH (80°-90°)	3.1	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°	398.8	398.8	398.8	398.8	398.8	398.8	398.8	398.8	398.8	398.8	398.8
2.5°	470.7	454.8	427.8	435.6	451.3	464.3	458.2	446.0	446.3	433.9	478.3
5°	547.7	526.3	510.6	516.1	515.4	514.9	544.1	555.3	560.0	580.5	610.6
7.5°	569.8	562.2	545.8	550.8	534.4	535.6	586.9	635.3	642.9	655.5	709.2
10°	561.2	546.5	552.4	552.4	552.7	579.3	613.7	660.0	669.3	717.7	723.4
12.5°	552.0	552.7	576.2	571.9	604.2	652.0	663.6	715.6	711.1	753.1	815.6
15°	586.4	604.5	589.3	595.2	598.3	654.3	673.1	742.2	762.2	815.4	856.0
17.5°	645.5	647.9	616.3	607.8	630.1	646.0	683.8	717.0	730.3	870.0	927.5
20°	656.2	671.4	639.4	590.0	637.2	659.1	685.4	701.4	707.1	886.9	967.8
22.5°	720.6	703.7	652.4	614.9	628.4	652.2	668.6	716.6	750.8	855.0	1006.6
25°	753.6	749.1	700.2	668.1	654.3	652.4	690.0	726.3	737.2	888.0	1016.1
27.5°	832.7	822.5	727.7	723.7	678.3	638.4	690.7	756.0	776.4	856.9	1051.7
30°	940.3	936.5	810.4	807.8	735.6	663.8	729.1	774.3	761.9	872.8	1075.4
32.5°	1048.6	1079.5	950.5	876.9	822.7	757.2	718.2	768.6	790.7	911.6	1119.1
35°	1179.5	1201.8	1070.4	1017.0	896.6	800.9	790.7	823.0	832.5	957.6	1168.8
37.5°	1408.4	1374.7	1262.8	1171.9	1108.7	956.9	906.6	880.9	903.0	1020.1	1270.2
40°	1577.5	1556.1	1418.4	1364.0	1218.7	1129.8	998.2	974.3	999.0	1084.2	1340.7
42.5°	1781.5	1737.1	1607.5	1570.6	1421.0	1249.8	1116.3	1124.6	1109.2	1210.8	1464.5
45°	1966.1	1865.9	1793.7	1802.0	1722.2	1490.8	1313.2	1309.1	1296.3	1394.2	1594.6
47.5°	2090.3	2002.7	1932.4	1909.3	1899.8	1914.8	1597.7	1526.0	1516.5	1586.8	1799.6
50°	2157.0	2061.1	1974.2	1978.9	2171.8	2316.9	1891.3	1789.4	1792.9	1866.3	2079.9
52.5°	2112.2	2003.6	1911.9	2001.0	2382.7	2585.0	2377.2	2133.5	2216.2	2197.4	2455.8
55°	1904.8	1810.5	1745.4	1904.8	2405.7	2873.6	2975.5	2651.5	2633.0	2590.3	2839.2
57.5°	1555.9	1474.7	1434.5	1602.7	2153.7	3106.1	3576.4	3237.0	3079.0	2900.0	3157.4
60°	1159.3	1099.4	1057.6	1146.4	1697.0	2880.3	3969.9	3788.7	3605.8	3198.5	3443.4
62.5°	858.6	809.9	765.5	773.6	1168.5	2477.2	4121.0	4373.2	4268.2	3513.7	3713.2
65°	685.2	640.8	609.7	591.9	723.7	1863.7	3910.8	4852.3	4973.4	3810.6	3907.9
67.5°	559.6	522.0	506.6	527.0	567.6	1062.4	3349.3	5143.0	5318.7	4125.5	3955.9
70°	455.3	424.4	422.8	477.9	522.8	647.7	2463.7	4942.3	5074.6	4179.2	3668.3
72.5°	317.3	303.8	325.4	403.5	518.0	539.4	1414.8	4089.9	4094.6	3691.1	3017.3
75°	179.6	177.4	211.6	321.8	504.5	533.9	788.8	2890.2	2892.4	2791.7	2090.3
77.5°	98.8	92.4	123.3	217.6	433.2	521.6	508.7	1973.4	1922.9	1553.5	954.8
80°	45.6	43.0	66.7	139.4	316.8	493.3	407.8	1084.7	978.1	506.1	233.0
82.5°	18.8	17.8	30.6	89.5	200.2	397.4	343.7	481.2	386.2	96.2	72.0
85°	3.3	3.6	12.6	54.2	112.1	183.1	278.6	228.5	167.9	26.6	39.4
87.5°	0.0	0.0	2.6	13.1	27.1	50.1	113.1	63.9	43.9	7.8	11.6
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°	398.8	398.8	398.8	398.8	398.8	398.8	398.8	398.8	398.8	398.8	398.8
2.5°	487.1	483.1	442.2	444.1	447.0	444.4	443.9	432.5	422.1	456.5	456.0
5°	616.1	587.4	559.1	548.2	524.7	493.8	494.0	484.3	474.3	488.3	488.3
7.5°	708.0	668.3	632.5	568.6	506.4	450.1	445.1	431.8	416.6	434.9	438.4
10°	729.4	694.9	648.6	554.8	495.9	441.1	380.7	331.1	308.0	297.4	295.5
12.5°	795.2	769.5	666.0	562.2	477.4	384.5	285.7	226.8	186.7	183.6	179.3
15°	839.1	821.1	683.1	543.9	399.0	276.5	179.6	137.8	121.6	120.2	118.0
17.5°	907.3	875.9	666.7	485.7	312.1	182.4	120.7	108.8	110.7	115.0	111.6
20°	935.1	873.8	631.1	401.4	219.2	122.3	104.7	98.3	103.3	107.4	105.5
22.5°	963.6	880.0	599.5	330.8	143.2	101.2	93.3	90.0	90.5	94.5	94.8
25°	963.3	897.1	562.9	257.7	106.6	90.0	84.3	80.0	78.4	81.2	80.5
27.5°	1010.1	877.4	496.2	191.2	93.8	80.5	75.1	69.8	63.9	66.7	66.7
30°	1010.4	909.4	449.6	137.3	86.0	71.7	67.0	58.9	52.0	54.4	54.6
32.5°	1037.2	881.6	406.6	105.0	79.8	66.5	56.1	48.7	44.7	46.1	46.1
35°	1067.8	905.4	340.6	92.6	73.6	59.1	48.0	42.0	39.0	40.1	40.1
37.5°	1169.0	900.4	294.7	86.2	69.6	53.4	43.7	37.1	35.6	36.3	37.3
40°	1205.6	935.8	232.5	82.4	62.9	48.2	38.5	33.5	31.6	32.1	32.3
42.5°	1298.7	943.6	185.7	79.3	57.0	41.8	34.2	30.6	28.3	28.3	29.0
45°	1401.5	963.3	147.7	76.7	52.0	37.5	30.9	28.0	24.5	24.0	24.9
47.5°	1550.4	1038.9	120.4	71.5	46.1	34.9	28.5	24.2	21.4	20.4	21.4
50°	1799.6	1167.1	106.4	65.1	41.8	32.8	25.2	20.7	18.5	17.3	18.1
52.5°	2151.1	1388.7	99.0	59.1	38.0	29.5	22.6	18.1	15.9	15.0	15.4
55°	2541.6	1642.8	95.5	53.2	34.7	25.9	19.7	15.9	14.0	12.8	13.1
57.5°	2902.6	1881.8	91.9	47.5	31.4	23.0	17.3	14.0	12.1	10.9	11.2
60°	3258.4	2072.5	83.4	40.9	28.3	20.7	15.2	12.1	10.9	9.5	9.5
62.5°	3573.1	2186.5	71.0	35.4	25.4	18.3	13.5	10.9	10.0	8.6	8.6
65°	3787.3	2191.7	57.2	30.4	22.3	15.7	11.9	10.2	9.3	7.6	7.4
67.5°	3790.4	2049.2	45.8	27.1	19.7	13.8	10.7	9.7	8.6	7.1	6.7
70°	3392.6	1693.0	38.2	23.8	17.1	12.1	9.3	9.3	8.3	6.9	6.2
72.5°	2713.8	1293.7	32.1	20.7	15.2	10.5	8.6	8.8	8.1	6.9	6.2
75°	1824.1	742.0	26.6	17.6	13.3	8.8	8.3	8.6	8.3	6.9	5.9
77.5°	840.1	236.3	20.7	14.5	11.4	7.4	8.1	8.1	7.6	6.2	5.2
80°	189.3	58.2	15.0	10.7	9.3	5.5	7.4	6.7	5.9	4.3	3.1
82.5°	68.9	17.8	9.0	6.7	5.7	2.1	4.8	4.8	4.3	3.1	1.9
85°	39.4	9.3	5.0	4.3	3.1	1.0	2.6	2.9	2.4	2.1	1.0
87.5°	12.8	2.1	2.4	2.6	2.4	0.5	1.0	1.0	0.7	0.5	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)