

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: P366911

Luminaire Tested: **MSA-SA1C-740-U-SL2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366911
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-740-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: 5141 lumens
Efficiency: N/A
Efficacy: 87.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

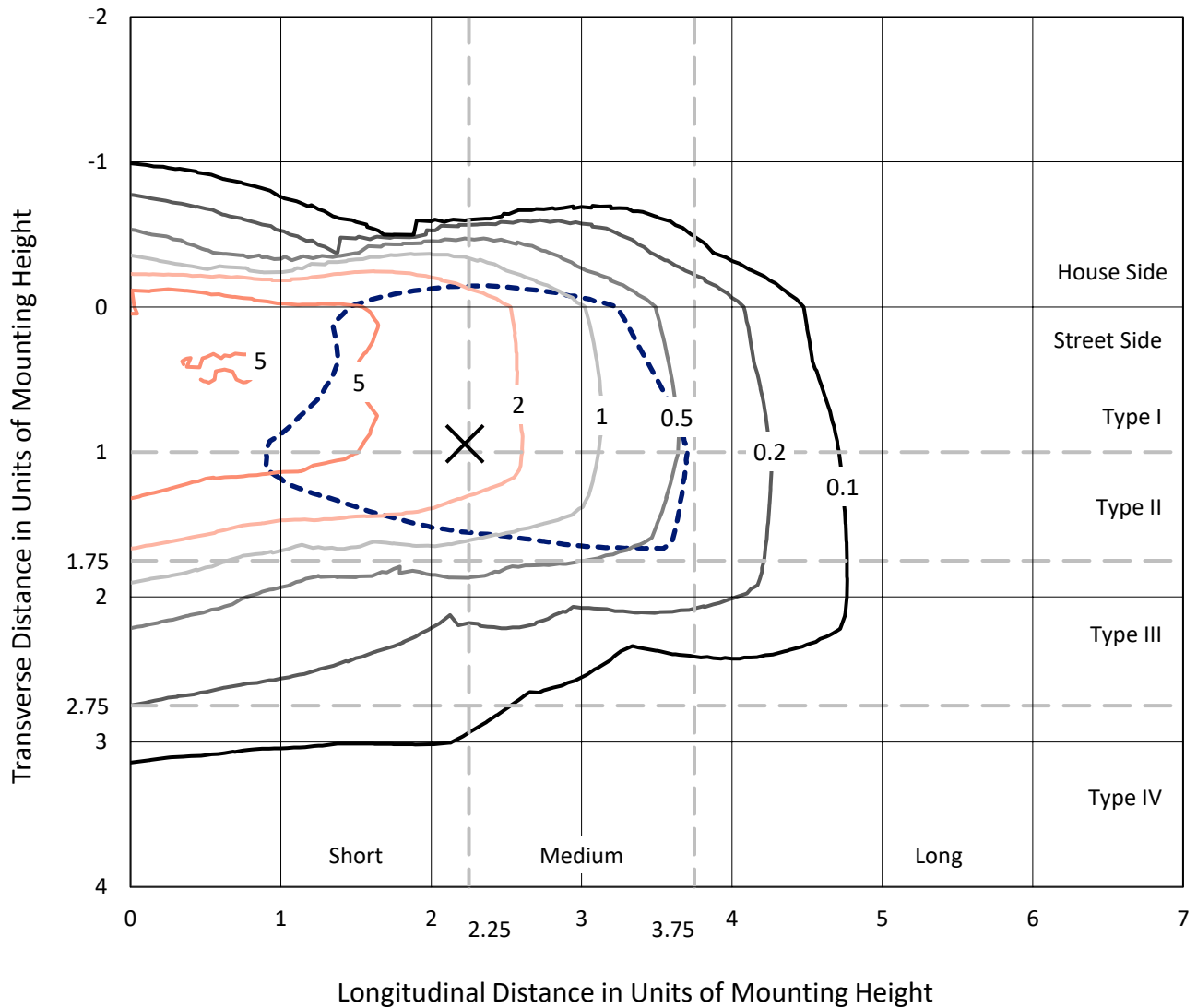
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

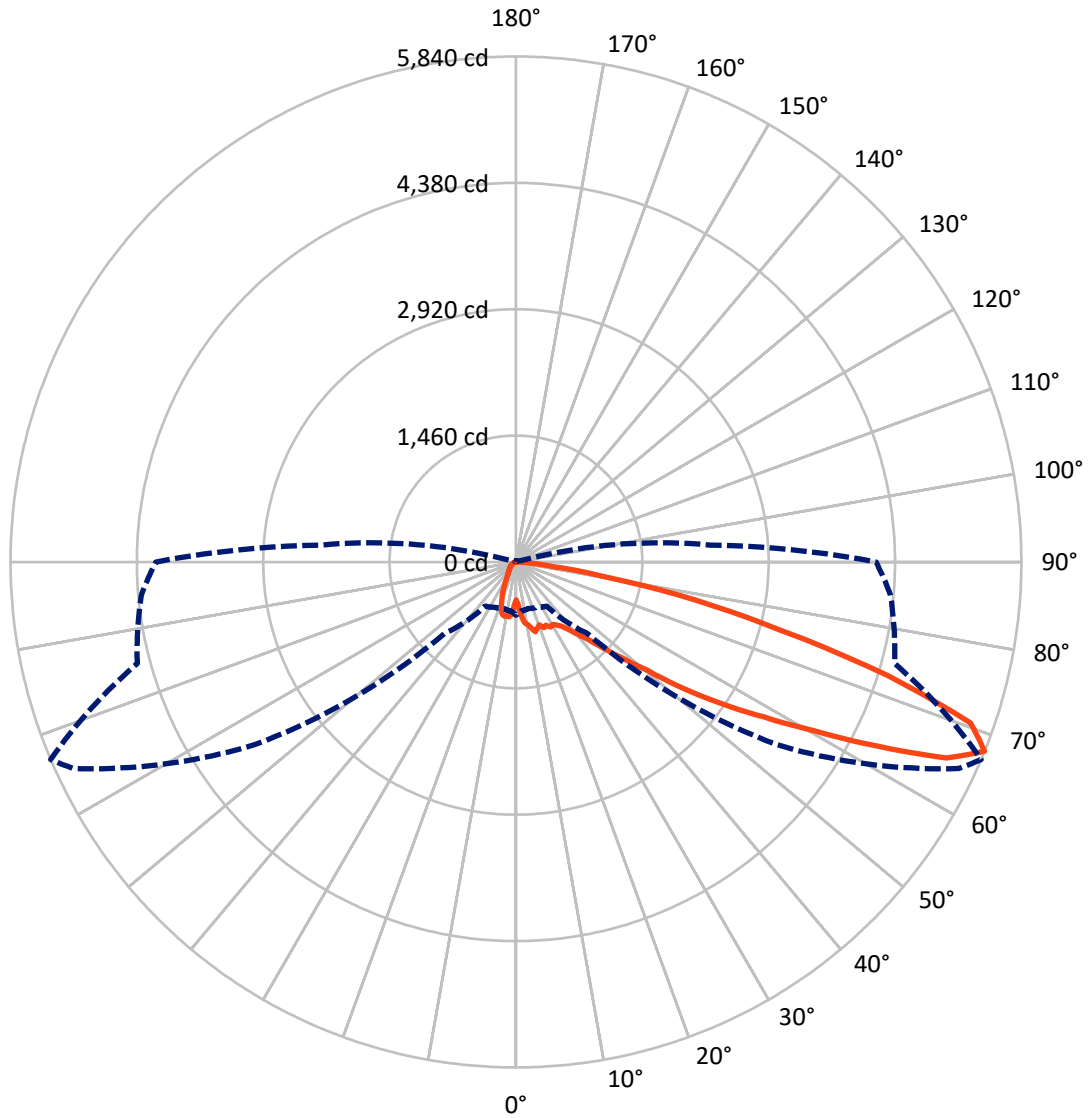
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.5 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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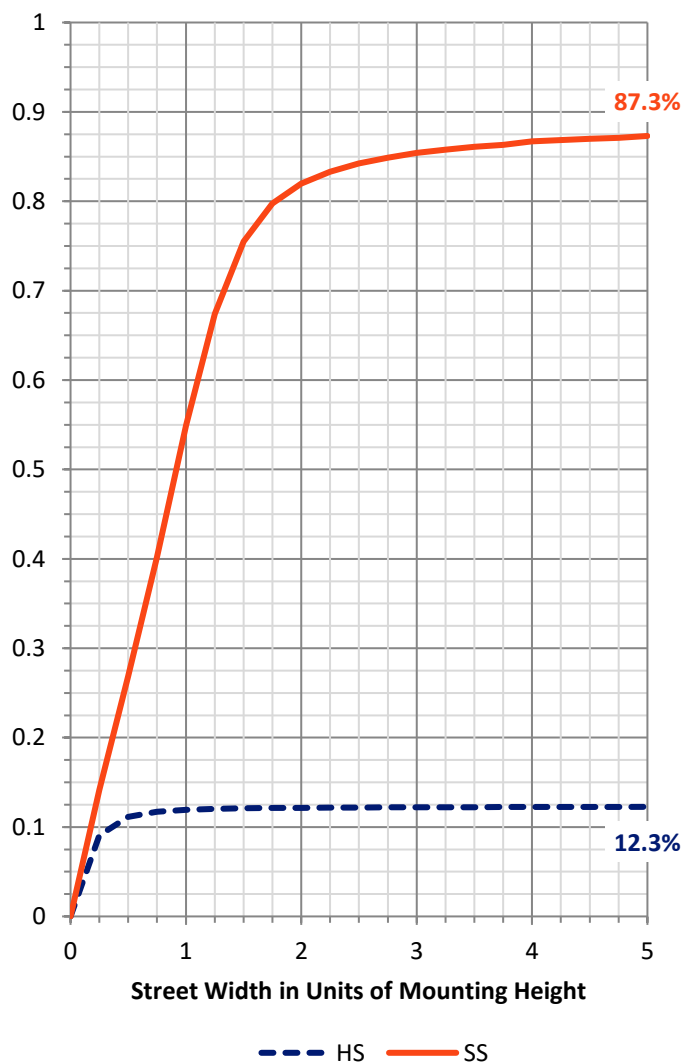
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	635.8	0.0	635.8
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	4505.2	0.0	4505.2
	% Fixture	87.6	0.0	87.6
Total	Lumens	5141.0	0.0	5141.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.0	1.1
10°-20°	162.6	3.2
20°-30°	254.9	5.0
30°-40°	410.9	8.0
40°-50°	755.1	14.7
50°-60°	1275.3	24.8
60°-70°	1409.9	27.4
70°-80°	737.9	14.4
80°-90°	79.2	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°	5141.0	100.0
0°-180°	5141.0	100.0

Coefficient of Utilization



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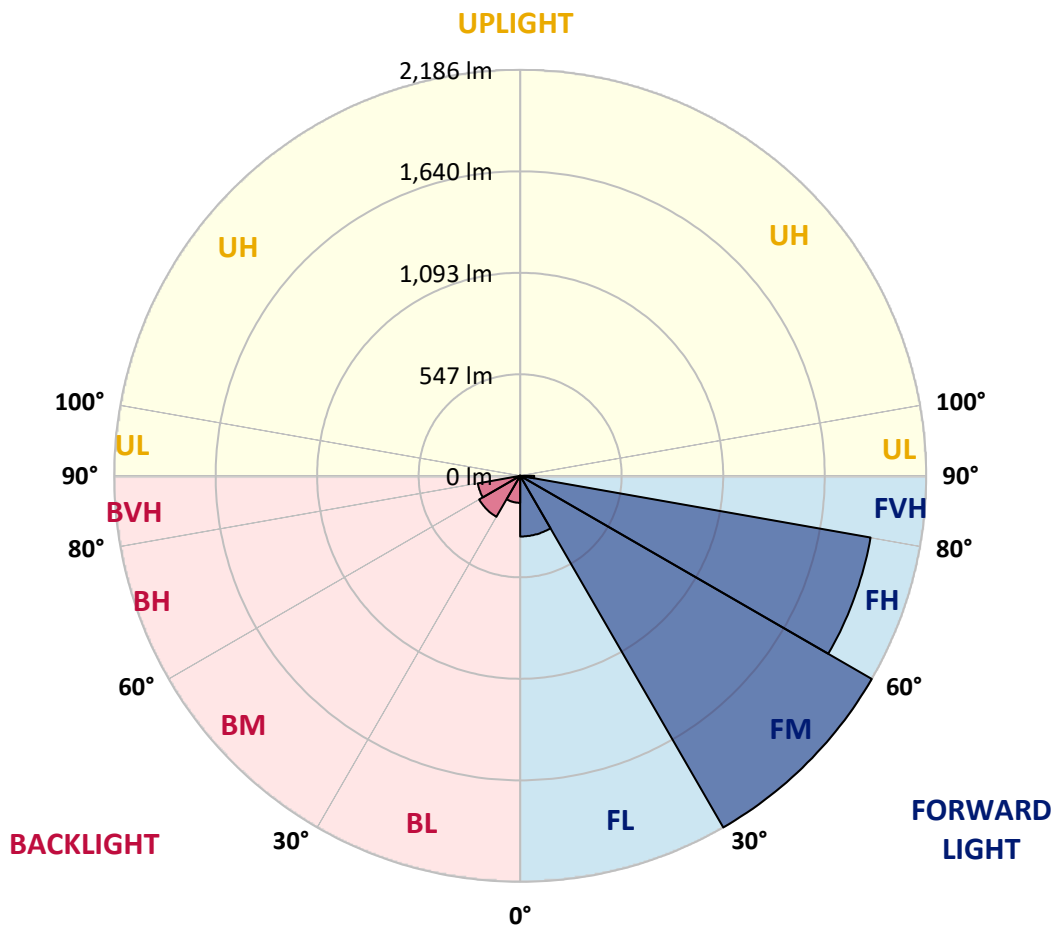
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	326.9	6.4			
FM (30°-60°)	2186.5	42.5			
FH (60°-80°)	1916.0	37.3			G2/5000
FVH (80°-90°)	75.9	1.5			G1/100
BL (0°-30°)	145.6	2.8	B1/500		
BM (30°-60°)	254.9	5.0	B1/1000		
BH (60°-80°)	231.9	4.5	B1/500		G1/500
BVH (80°-90°)	3.4	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-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	437.9	437.9	437.9	437.9	437.9	437.9	437.9	437.9	437.9	437.9	437.9
2.5°	516.9	499.4	469.7	478.3	495.5	509.8	503.1	489.8	490.0	476.5	525.2
5°	601.4	577.9	560.7	566.7	565.9	565.4	597.5	609.7	614.9	637.4	670.5
7.5°	625.6	617.3	599.3	604.8	586.8	588.1	644.4	697.6	706.0	719.8	778.7
10°	616.3	600.1	606.6	606.6	606.9	636.1	673.9	724.7	734.9	788.1	794.4
12.5°	606.1	606.9	632.7	628.0	663.5	715.9	728.7	785.8	780.8	827.0	895.6
15°	643.9	663.7	647.0	653.5	656.9	718.5	739.1	815.0	836.9	895.3	939.9
17.5°	708.8	711.4	676.8	667.4	691.9	709.4	750.8	787.3	801.9	955.3	1018.4
20°	720.6	737.3	702.1	647.8	699.7	723.7	752.6	770.1	776.4	973.8	1062.7
22.5°	791.2	772.7	716.4	675.2	690.1	716.1	734.1	786.8	824.4	938.8	1105.2
25°	827.5	822.5	768.8	733.6	718.5	716.4	757.6	797.5	809.5	975.1	1115.7
27.5°	914.3	903.1	799.1	794.6	744.8	701.0	758.4	830.1	852.5	940.9	1154.8
30°	1032.5	1028.3	889.8	887.0	807.7	728.9	800.6	850.2	836.6	958.4	1180.9
32.5°	1151.4	1185.3	1043.7	962.8	903.4	831.4	788.6	843.9	868.2	1000.9	1228.8
35°	1295.1	1319.6	1175.4	1116.7	984.5	879.4	868.2	903.6	914.1	1051.5	1283.4
37.5°	1546.5	1509.5	1386.6	1286.7	1217.4	1050.7	995.4	967.3	991.5	1120.1	1394.7
40°	1732.2	1708.7	1557.4	1497.7	1338.1	1240.6	1096.1	1069.8	1096.9	1190.5	1472.2
42.5°	1956.2	1907.4	1765.0	1724.6	1560.3	1372.3	1225.7	1234.8	1217.9	1329.5	1608.0
45°	2158.8	2048.8	1969.5	1978.6	1891.0	1637.0	1441.9	1437.5	1423.4	1530.8	1751.0
47.5°	2295.2	2199.0	2121.8	2096.5	2086.1	2102.5	1754.3	1675.6	1665.2	1742.3	1976.0
50°	2368.5	2263.1	2167.7	2172.9	2384.7	2544.0	2076.7	1964.8	1968.7	2049.3	2283.8
52.5°	2319.2	2200.0	2099.4	2197.2	2616.3	2838.5	2610.3	2342.7	2433.4	2412.8	2696.6
55°	2091.5	1988.0	1916.6	2091.5	2641.6	3155.3	3267.2	2911.5	2891.1	2844.2	3117.5
57.5°	1708.4	1619.3	1575.2	1759.8	2364.9	3410.6	3927.0	3554.3	3380.9	3184.3	3467.0
60°	1272.9	1207.2	1161.3	1258.8	1863.4	3162.6	4359.1	4160.1	3959.3	3512.1	3781.0
62.5°	942.8	889.3	840.5	849.4	1283.1	2720.1	4525.0	4802.0	4686.7	3858.1	4077.2
65°	752.4	703.6	669.5	649.9	794.6	2046.4	4294.2	5328.0	5461.0	4184.1	4291.1
67.5°	614.4	573.2	556.3	578.7	623.3	1166.5	3677.7	5647.2	5840.2	4529.9	4343.7
70°	499.9	466.0	464.2	524.7	574.0	711.2	2705.2	5426.8	5572.1	4588.9	4027.9
72.5°	348.4	333.6	357.3	443.1	568.8	592.3	1553.5	4490.8	4496.0	4053.0	3313.1
75°	197.2	194.8	232.4	353.4	553.9	586.3	866.1	3173.6	3175.9	3065.3	2295.2
77.5°	108.5	101.4	135.4	238.9	475.7	572.7	558.6	2166.9	2111.4	1705.8	1048.4
80°	50.1	47.2	73.3	153.1	347.9	541.7	447.8	1191.0	1073.9	555.7	255.8
82.5°	20.6	19.6	33.6	98.3	219.8	436.3	377.4	528.4	424.0	105.6	79.0
85°	3.7	3.9	13.8	59.5	123.1	201.1	305.9	250.9	184.4	29.2	43.3
87.5°	0.0	0.0	2.9	14.3	29.7	55.0	124.1	70.2	48.2	8.6	12.8
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°	437.9	437.9	437.9	437.9	437.9	437.9	437.9	437.9	437.9	437.9	437.9
2.5°	534.9	530.4	485.6	487.7	490.8	487.9	487.4	474.9	463.4	501.2	500.7
5°	676.5	644.9	613.9	601.9	576.1	542.2	542.4	531.8	520.8	536.2	536.2
7.5°	777.4	733.9	694.5	624.3	556.0	494.2	488.7	474.1	457.4	477.5	481.4
10°	800.9	763.1	712.2	609.2	544.5	484.3	418.0	363.5	338.2	326.5	324.4
12.5°	873.1	845.0	731.3	617.3	524.2	422.2	313.7	249.1	205.0	201.6	196.9
15°	921.4	901.6	750.0	597.2	438.1	303.6	197.2	151.3	133.5	132.0	129.6
17.5°	996.2	961.8	732.0	533.3	342.7	200.3	132.5	119.4	121.5	126.2	122.6
20°	1026.7	959.5	692.9	440.7	240.7	134.3	115.0	108.0	113.4	117.9	115.8
22.5°	1058.0	966.2	658.2	363.3	157.3	111.1	102.5	98.8	99.4	103.8	104.1
25°	1057.8	985.0	618.1	283.0	117.1	98.8	92.6	87.9	86.1	89.2	88.4
27.5°	1109.1	963.4	544.8	209.9	103.0	88.4	82.4	76.7	70.2	73.3	73.3
30°	1109.4	998.6	493.7	150.7	94.4	78.8	73.5	64.7	57.1	59.7	60.0
32.5°	1138.9	968.1	446.5	115.3	87.6	73.0	61.5	53.5	49.0	50.6	50.6
35°	1172.5	994.1	374.0	101.7	80.8	64.9	52.7	46.2	42.8	44.1	44.1
37.5°	1283.6	988.7	323.6	94.7	76.4	58.7	48.0	40.7	39.1	39.9	40.9
40°	1323.8	1027.5	255.3	90.5	69.1	52.9	42.2	36.8	34.7	35.2	35.5
42.5°	1426.0	1036.1	203.9	87.1	62.6	45.9	37.6	33.6	31.0	31.0	31.8
45°	1538.9	1057.8	162.2	84.2	57.1	41.2	33.9	30.8	26.9	26.3	27.4
47.5°	1702.4	1140.7	132.2	78.5	50.6	38.3	31.3	26.6	23.5	22.4	23.5
50°	1976.0	1281.5	116.8	71.5	45.9	36.0	27.6	22.7	20.3	19.0	19.8
52.5°	2362.0	1524.8	108.8	64.9	41.7	32.3	24.8	19.8	17.5	16.4	17.0
55°	2790.7	1803.9	104.8	58.4	38.1	28.4	21.6	17.5	15.4	14.1	14.3
57.5°	3187.1	2066.3	100.9	52.2	34.4	25.3	19.0	15.4	13.3	12.0	12.3
60°	3577.8	2275.7	91.5	44.9	31.0	22.7	16.7	13.3	12.0	10.4	10.4
62.5°	3923.3	2400.8	78.0	38.9	27.9	20.1	14.9	12.0	11.0	9.4	9.4
65°	4158.6	2406.6	62.9	33.4	24.5	17.2	13.0	11.2	10.2	8.3	8.1
67.5°	4162.0	2250.1	50.3	29.7	21.6	15.1	11.7	10.7	9.4	7.8	7.3
70°	3725.1	1858.9	42.0	26.1	18.8	13.3	10.2	10.2	9.1	7.6	6.8
72.5°	2979.8	1420.5	35.2	22.7	16.7	11.5	9.4	9.6	8.9	7.6	6.8
75°	2002.9	814.7	29.2	19.3	14.6	9.6	9.1	9.4	9.1	7.6	6.5
77.5°	922.4	259.5	22.7	15.9	12.5	8.1	8.9	8.9	8.3	6.8	5.7
80°	207.9	63.9	16.4	11.7	10.2	6.0	8.1	7.3	6.5	4.7	3.4
82.5°	75.6	19.6	9.9	7.3	6.3	2.3	5.2	5.2	4.7	3.4	2.1
85°	43.3	10.2	5.5	4.7	3.4	1.0	2.9	3.1	2.6	2.3	1.0
87.5°	14.1	2.3	2.6	2.9	2.6	0.5	1.0	1.0	0.8	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)