

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: P366914

Luminaire Tested: **MSA-SA1C-740-U-SL3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366914
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-18)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-740-U-SL3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6154 lumens
Efficiency: N/A
Efficacy: 104.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

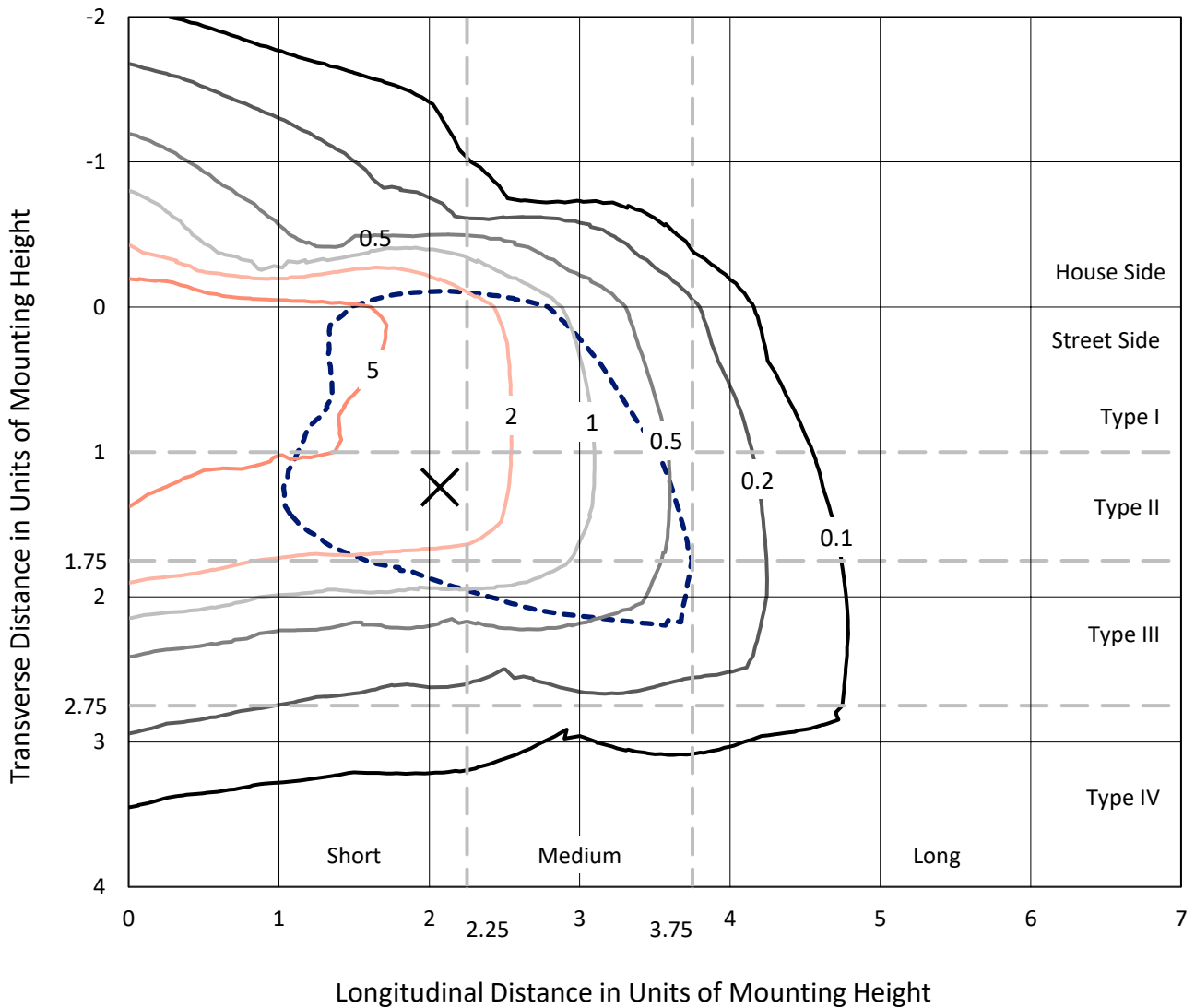
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

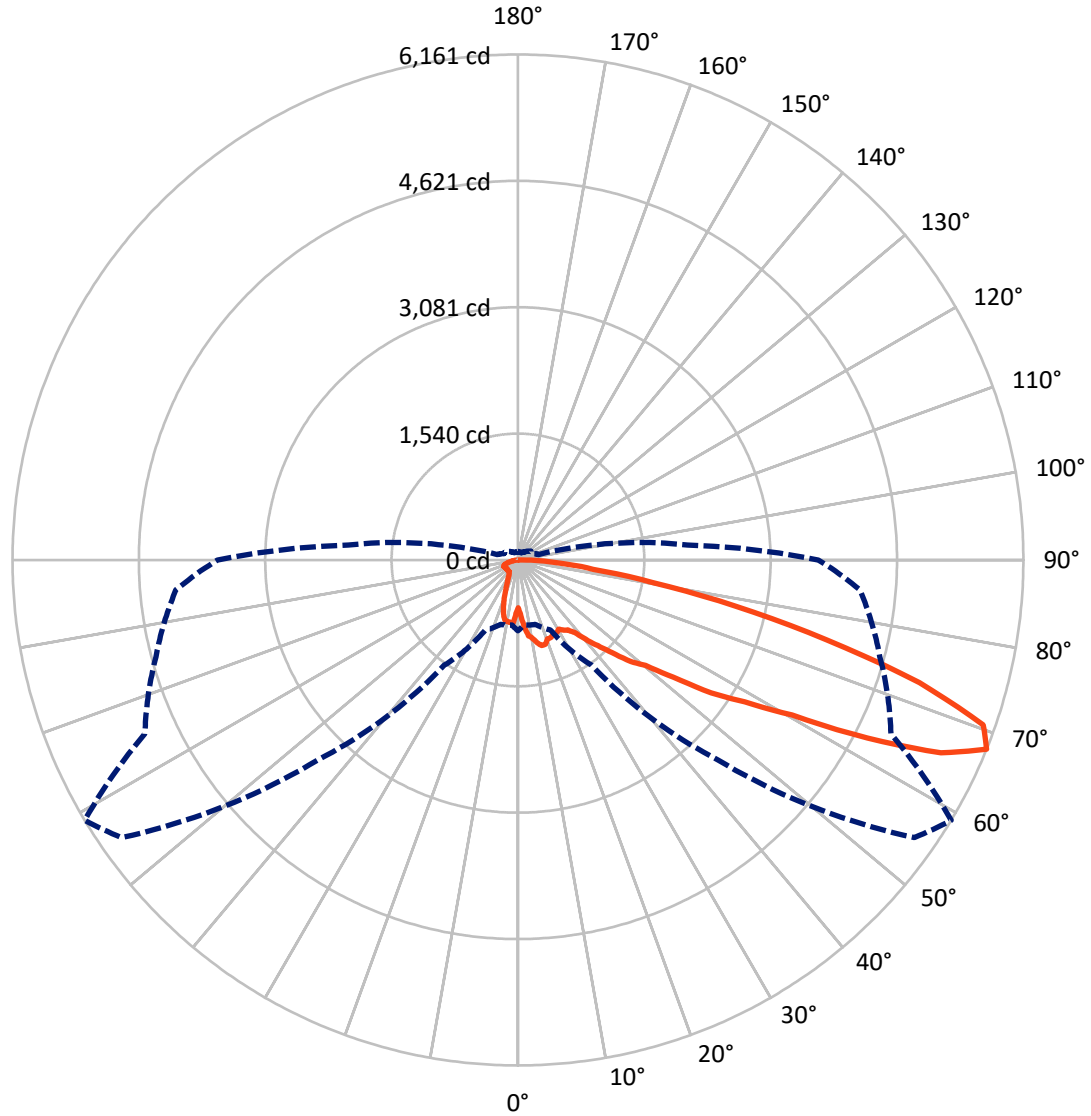
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.9 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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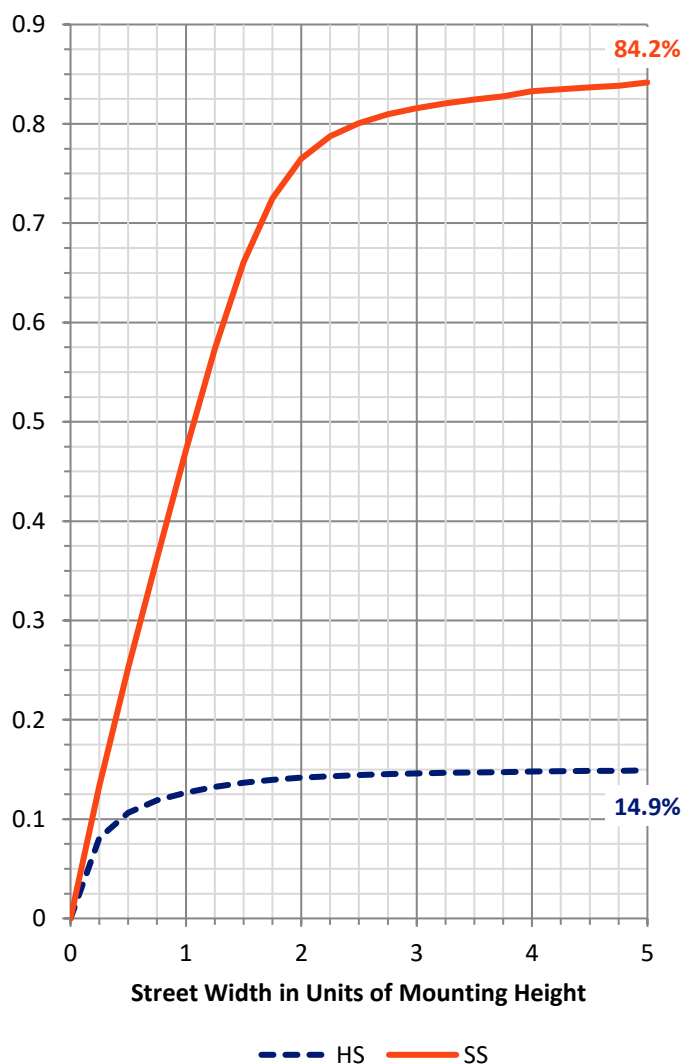
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	926.3	0.0	926.3
	% Fixture	15.1	0.0	15.1
Street Side	Lumens	5227.7	0.0	5227.7
	% Fixture	84.9	0.0	84.9
Total	Lumens	6154.0	0.0	6154.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.1	1.2
10°-20°	225.1	3.7
20°-30°	321.4	5.2
30°-40°	473.6	7.7
40°-50°	800.2	13.0
50°-60°	1392.5	22.6
60°-70°	1774.4	28.8
70°-80°	939.6	15.3
80°-90°	151.1	2.5
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°	6154.0	100.0
0°-180°	6154.0	100.0

Coefficient of Utilization



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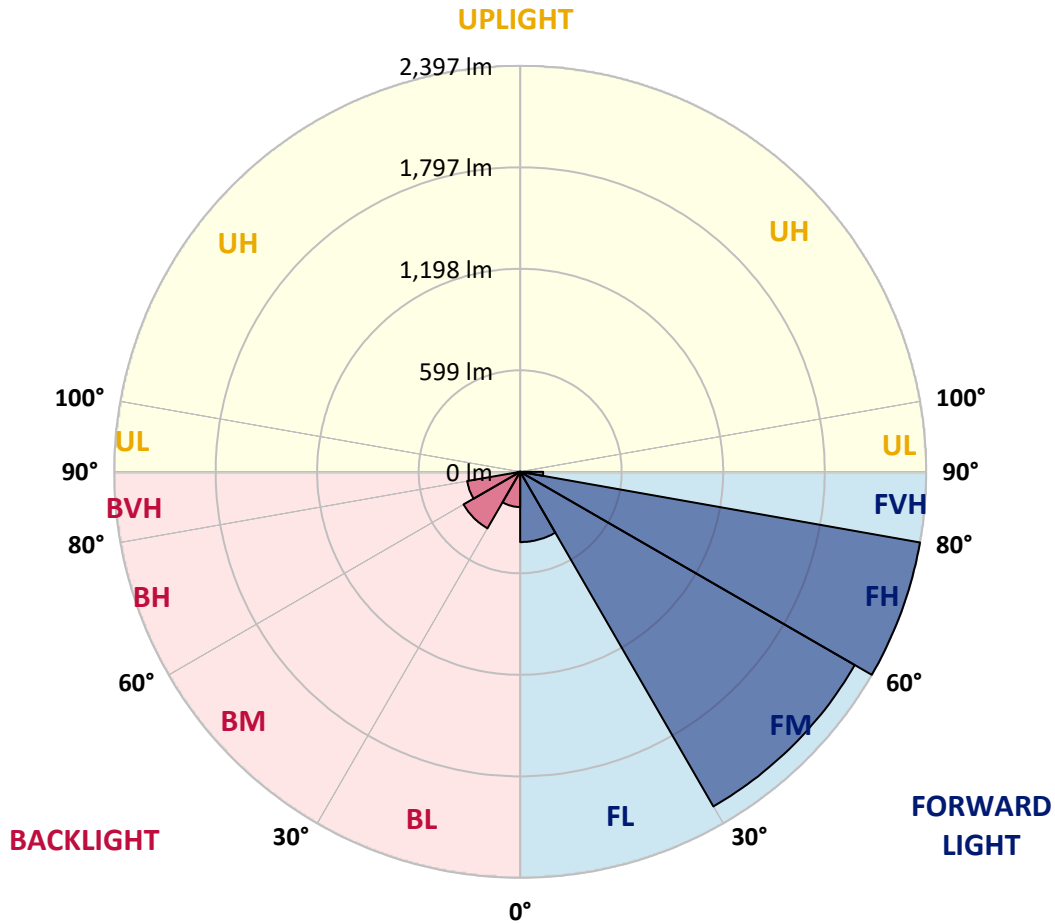
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	414.8	6.7			
FM (30°-60°)	2280.6	37.1			
FH (60°-80°)	2396.6	38.9			G2/5000
FVH (80°-90°)	135.8	2.2			G2/225
BL (0°-30°)	207.7	3.4	B1/500		
BM (30°-60°)	385.7	6.3	B1/1000		
BH (60°-80°)	317.5	5.2	B1/500		G1/500
BVH (80°-90°)	15.4	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	582.3	582.3	582.3	582.3	582.3	582.3	582.3	582.3	582.3	582.3	582.3
2.5°	727.1	693.2	657.2	667.3	687.9	697.3	687.2	677.3	664.5	649.4	701.0
5°	881.7	831.4	824.1	823.8	816.5	787.3	824.9	822.3	837.4	853.0	893.2
7.5°	925.8	907.0	886.7	896.3	859.5	858.0	916.4	933.1	962.3	952.6	1006.6
10°	903.1	882.0	892.7	888.8	892.1	930.7	966.5	967.5	998.8	1029.6	994.9
12.5°	863.2	864.8	907.3	905.7	960.5	1032.2	1042.9	1034.5	1085.6	1064.8	1094.5
15°	891.6	910.7	900.0	909.1	930.7	1022.0	1051.7	1082.0	1130.5	1149.3	1119.5
17.5°	937.0	947.2	899.2	894.2	938.8	982.1	1055.9	1081.7	1089.3	1223.1	1181.1
20°	917.7	938.3	891.4	831.1	905.2	962.6	1035.3	1027.5	1064.3	1228.8	1193.9
22.5°	972.5	938.3	878.6	835.8	861.9	914.6	976.4	1027.7	1071.3	1195.2	1212.4
25°	982.9	966.7	910.9	868.4	859.5	878.3	966.5	1000.1	1073.6	1241.1	1202.5
27.5°	1046.5	1022.3	908.6	909.9	865.8	832.7	935.2	1005.8	1100.2	1212.6	1226.7
30°	1125.5	1107.0	964.4	969.6	908.6	847.5	956.6	977.9	1115.6	1257.0	1257.2
32.5°	1184.7	1217.3	1074.2	1003.2	981.6	936.0	923.7	1019.9	1097.6	1337.3	1309.4
35°	1291.4	1316.7	1158.7	1101.8	1028.5	977.2	1012.9	1047.6	1172.5	1442.9	1386.8
37.5°	1488.8	1459.6	1315.7	1226.2	1198.8	1124.8	1144.6	1120.3	1253.8	1561.6	1538.6
40°	1603.0	1577.7	1426.2	1376.7	1268.2	1277.6	1252.8	1270.5	1362.6	1687.8	1680.5
42.5°	1715.7	1681.8	1553.8	1519.3	1411.1	1365.2	1369.6	1427.0	1530.3	1891.7	1867.5
45°	1827.1	1740.2	1684.1	1693.3	1641.1	1547.0	1553.5	1607.5	1713.4	2124.9	2069.1
47.5°	1912.3	1840.6	1796.8	1785.6	1759.8	1885.7	1829.4	1851.3	1898.0	2332.5	2311.3
50°	2073.8	1990.0	1932.9	1916.8	2004.4	2179.6	2064.9	2017.7	2117.0	2600.8	2589.8
52.5°	2332.2	2227.9	2132.7	2131.6	2258.4	2372.1	2452.9	2371.6	2408.1	2875.7	2907.0
55°	2557.8	2437.0	2351.5	2398.7	2579.2	2648.8	2923.4	2859.8	2829.0	3153.1	3242.6
57.5°	2642.0	2500.9	2445.1	2514.7	2780.7	3138.5	3428.8	3261.4	3231.4	3467.1	3654.6
60°	2457.1	2307.9	2311.3	2442.5	2903.3	3498.2	3981.4	3839.3	3663.5	3858.0	4041.1
62.5°	1930.3	1795.5	1883.4	2082.9	2800.6	3847.6	4722.0	4782.0	4157.2	4182.2	4255.5
65°	1312.0	1218.6	1297.9	1493.2	2271.4	4038.2	5427.4	5667.9	4606.7	4394.5	4348.1
67.5°	863.5	797.5	812.9	942.7	1563.7	3442.6	5899.2	6161.3	5017.7	4568.7	4184.8
70°	668.7	615.5	608.7	676.7	927.3	2391.6	5619.6	6018.1	5268.1	4405.4	3647.6
72.5°	524.7	484.3	487.9	553.4	718.2	1326.9	4348.6	5117.6	4891.0	3799.4	2802.4
75°	409.2	376.1	394.6	469.4	664.2	824.6	3000.3	3884.1	3781.4	2813.3	1598.3
77.5°	297.0	275.6	302.0	399.8	624.3	707.5	1867.7	2709.8	2422.4	1444.5	548.4
80°	194.8	182.8	204.5	326.0	566.2	680.9	1154.2	1660.4	1197.0	405.8	207.6
82.5°	114.7	109.5	127.5	220.6	455.1	638.1	769.8	922.7	489.8	171.6	110.3
85°	60.2	56.3	75.6	126.7	313.7	582.6	606.1	552.3	236.5	74.6	52.7
87.5°	20.1	19.6	32.1	49.0	118.7	309.3	323.4	262.3	97.5	21.6	11.5
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°	582.3	582.3	582.3	582.3	582.3	582.3	582.3	582.3	582.3	582.3	582.3
2.5°	708.0	697.6	637.6	646.0	653.8	649.9	647.5	620.4	617.8	656.4	653.3
5°	892.1	848.9	797.7	795.4	761.8	727.3	734.1	723.2	726.3	742.2	743.8
7.5°	989.4	935.4	886.7	807.4	740.1	685.6	694.2	691.6	684.6	720.5	730.2
10°	987.6	939.6	884.6	788.6	743.2	698.9	645.7	595.4	580.5	562.8	564.3
12.5°	1052.8	1010.3	890.3	792.5	731.0	654.6	554.9	499.9	447.2	446.2	432.9
15°	1073.1	1041.8	902.6	770.1	645.2	535.7	432.6	372.9	334.8	327.3	316.1
17.5°	1124.5	1075.5	865.3	697.6	545.6	418.8	325.2	283.5	280.3	285.6	279.8
20°	1127.9	1048.4	798.0	590.4	438.4	317.4	265.2	244.4	255.6	268.3	267.8
22.5°	1125.0	1014.2	739.8	499.1	329.4	255.0	232.4	227.7	238.1	257.1	259.5
25°	1095.8	1003.0	667.1	410.0	267.3	218.5	212.3	215.1	228.2	250.6	250.6
27.5°	1126.3	957.3	575.8	333.5	224.8	194.5	199.0	206.3	215.9	241.5	246.2
30°	1116.4	972.5	502.3	268.6	198.2	177.9	187.8	195.1	206.0	232.6	235.0
32.5°	1143.0	932.0	440.5	225.8	180.7	171.3	173.7	183.6	197.9	218.8	223.0
35°	1183.7	946.9	369.5	203.2	172.1	163.8	168.2	176.0	190.4	210.7	214.1
37.5°	1313.6	946.1	320.5	190.6	170.6	162.2	164.3	169.8	186.5	205.0	212.8
40°	1397.0	1000.4	275.9	187.8	168.7	161.4	159.6	165.6	178.9	200.8	206.3
42.5°	1553.8	1033.5	256.6	186.7	168.5	157.0	155.2	162.2	175.2	195.6	203.9
45°	1719.3	1080.7	241.2	186.2	167.7	156.2	150.7	159.6	170.6	190.1	199.8
47.5°	1914.2	1180.6	232.6	184.4	166.1	157.3	149.2	153.6	165.9	185.4	195.1
50°	2169.2	1312.8	234.4	181.8	168.5	157.5	146.8	148.9	160.1	179.2	189.1
52.5°	2479.3	1517.5	246.2	182.8	170.0	156.2	145.8	144.7	154.4	171.1	181.0
55°	2853.0	1808.0	281.4	187.8	170.0	155.9	144.2	139.5	146.8	160.4	170.0
57.5°	3303.9	2144.4	350.2	190.1	168.7	154.4	140.8	132.5	136.9	148.1	157.3
60°	3691.1	2415.9	421.2	191.7	171.3	150.7	134.0	123.6	126.5	135.1	143.2
62.5°	3888.5	2492.1	442.6	190.4	178.4	148.4	126.0	114.2	114.5	121.8	129.1
65°	3925.6	2390.6	356.8	189.1	187.5	148.1	120.2	106.1	104.3	109.5	115.8
67.5°	3661.7	2075.1	257.4	186.2	188.5	146.6	116.3	99.6	94.9	98.6	103.8
70°	3109.1	1671.1	216.2	180.5	176.0	138.7	109.5	92.8	86.6	89.2	93.1
72.5°	2317.8	1236.4	188.5	168.2	153.3	118.7	99.1	85.3	78.8	80.6	83.5
75°	1287.8	659.5	157.8	146.3	125.2	96.0	84.5	75.6	69.9	70.7	73.8
77.5°	427.7	243.3	115.8	116.0	94.7	74.1	69.6	64.7	60.2	60.5	63.1
80°	193.8	134.6	82.9	83.5	66.0	53.7	53.5	51.9	49.0	48.2	50.1
82.5°	112.4	81.6	56.9	54.2	42.5	34.9	38.9	38.1	37.3	34.4	34.9
85°	55.3	43.8	29.7	28.2	23.5	17.5	20.9	21.6	20.9	17.7	17.5
87.5°	13.6	14.3	7.3	6.8	3.9	1.8	3.1	3.1	3.9	2.6	1.3
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)