

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: P367417

Luminaire Tested: **MSA-SA2C-730-U-SL2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367417
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-SA2C-730-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) 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: 9208 lumens
Efficiency: N/A
Efficacy: 81.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

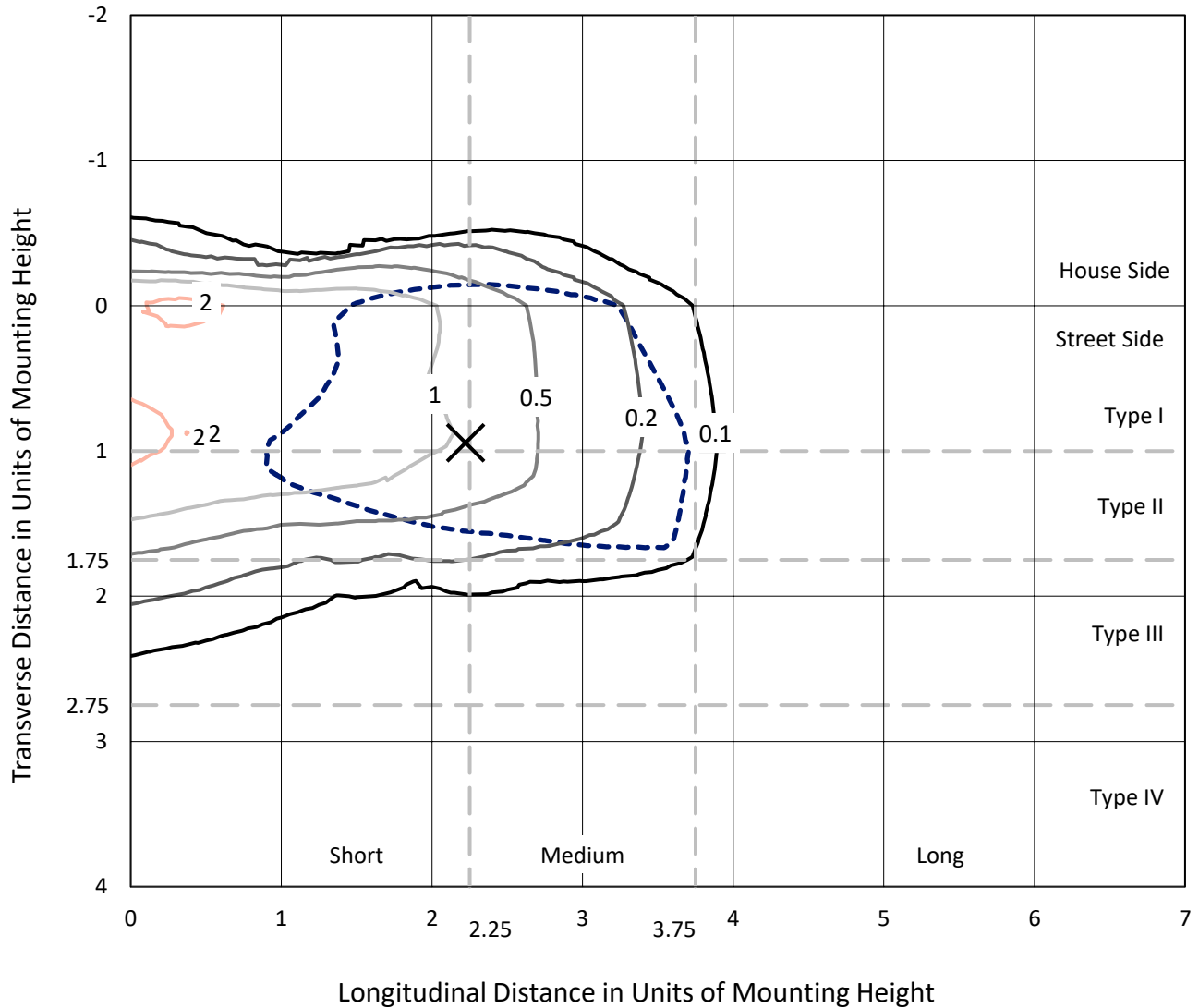
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

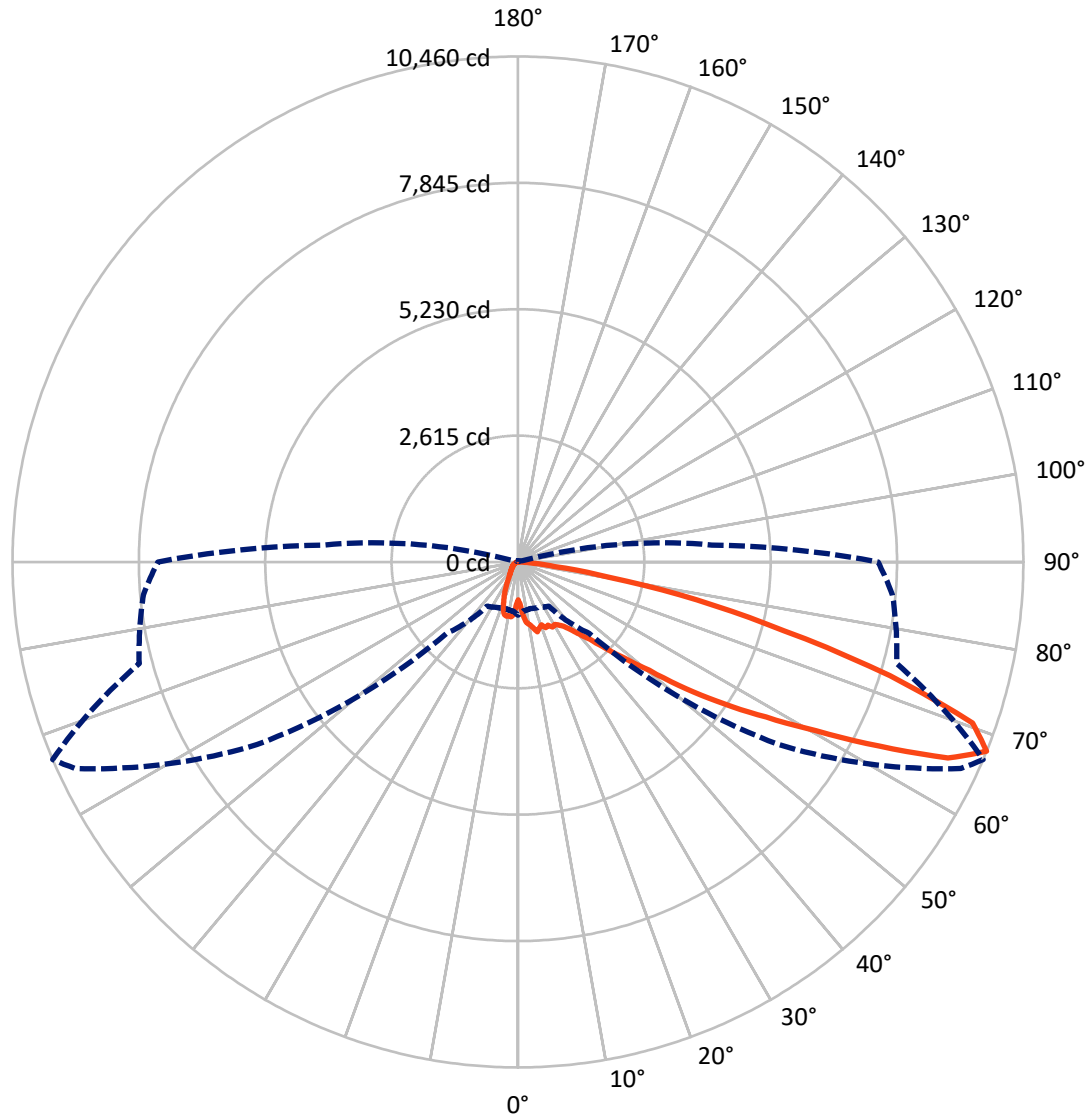
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 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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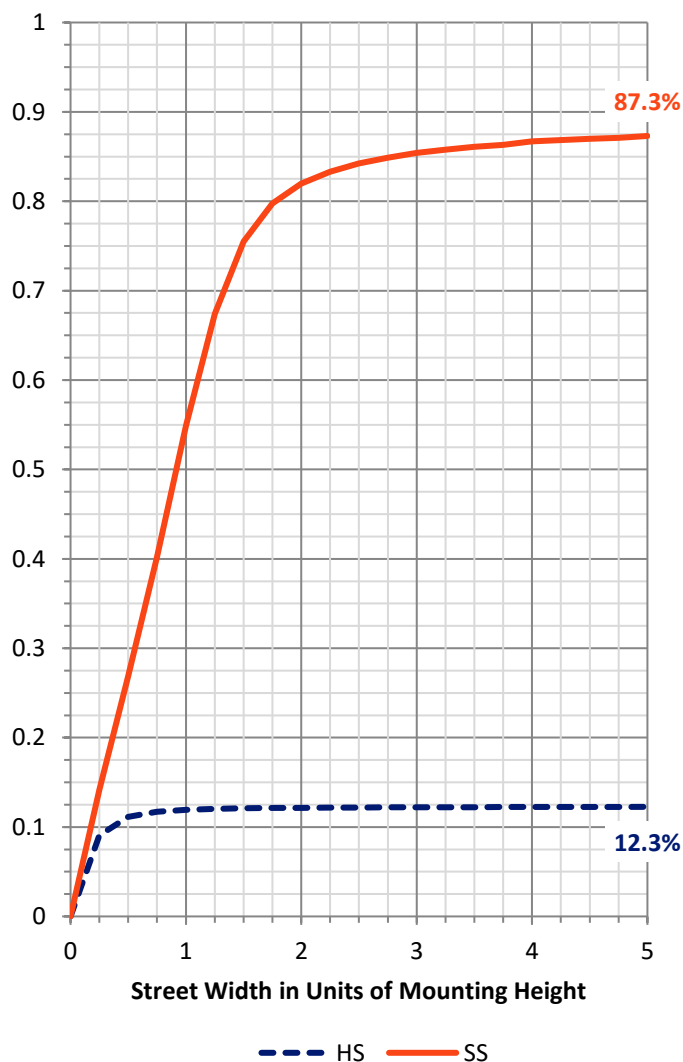
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1138.8	0.0	1138.8
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	8069.2	0.0	8069.2
	% Fixture	87.6	0.0	87.6
Total	Lumens	9208.0	0.0	9208.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.4	1.1
10°-20°	291.3	3.2
20°-30°	456.5	5.0
30°-40°	736.0	8.0
40°-50°	1352.5	14.7
50°-60°	2284.2	24.8
60°-70°	2525.3	27.4
70°-80°	1321.7	14.4
80°-90°	141.9	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°	9208.0	100.0
0°-180°	9208.0	100.0

Coefficient of Utilization

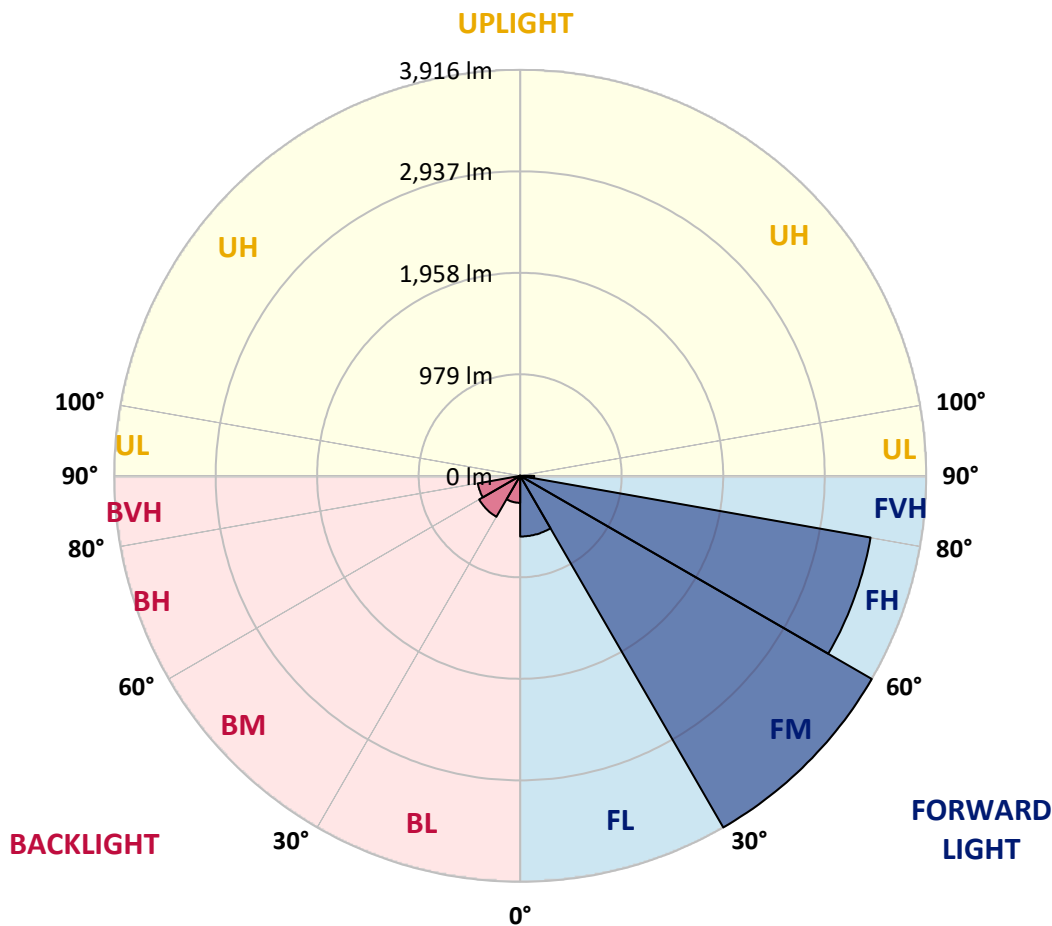


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	585.5	6.4			
FM (30°-60°)	3916.2	42.5			
FH (60°-80°)	3431.7	37.3			G2/5000
FVH (80°-90°)	135.9	1.5			G2/225
BL (0°-30°)	260.7	2.8	B1/500		
BM (30°-60°)	456.6	5.0	B1/1000		
BH (60°-80°)	415.4	4.5	B1/500		G1/500
BVH (80°-90°)	6.0	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°	784.3	784.3	784.3	784.3	784.3	784.3	784.3	784.3	784.3	784.3	784.3
2.5°	925.8	894.5	841.2	856.7	887.5	913.2	901.0	877.2	877.7	853.4	940.7
5°	1077.1	1035.1	1004.3	1015.0	1013.6	1012.7	1070.1	1092.1	1101.4	1141.6	1200.9
7.5°	1120.6	1105.6	1073.4	1083.2	1051.0	1053.3	1154.2	1249.5	1264.4	1289.2	1394.8
10°	1103.8	1074.8	1086.5	1086.5	1086.9	1139.3	1207.0	1298.1	1316.3	1411.6	1422.8
12.5°	1085.5	1086.9	1133.2	1124.8	1188.3	1282.2	1305.1	1407.4	1398.5	1481.2	1604.0
15°	1153.3	1188.8	1158.9	1170.6	1176.6	1286.9	1323.8	1459.7	1498.9	1603.6	1683.4
17.5°	1269.6	1274.3	1212.1	1195.3	1239.2	1270.5	1344.8	1410.2	1436.3	1711.0	1824.0
20°	1290.6	1320.5	1257.4	1160.3	1253.2	1296.2	1348.1	1379.4	1390.6	1744.2	1903.4
22.5°	1417.2	1384.0	1283.1	1209.3	1236.0	1282.7	1314.9	1409.2	1476.5	1681.6	1979.6
25°	1482.1	1473.2	1377.0	1314.0	1286.9	1283.1	1356.9	1428.4	1449.9	1746.5	1998.3
27.5°	1637.7	1617.6	1431.2	1423.3	1334.0	1255.6	1358.3	1486.8	1527.0	1685.3	2068.3
30°	1849.3	1841.8	1593.8	1588.6	1446.6	1305.5	1434.0	1522.8	1498.5	1716.6	2115.0
32.5°	2062.3	2123.0	1869.3	1724.5	1618.0	1489.1	1412.5	1511.5	1555.0	1792.7	2201.0
35°	2319.6	2363.5	2105.2	2000.1	1763.3	1575.1	1555.0	1618.5	1637.2	1883.4	2298.6
37.5°	2769.9	2703.6	2483.6	2304.7	2180.4	1882.0	1782.9	1732.5	1775.9	2006.2	2498.1
40°	3102.5	3060.4	2789.5	2682.6	2396.7	2222.0	1963.2	1916.1	1964.6	2132.3	2636.8
42.5°	3503.7	3416.4	3161.3	3088.9	2794.7	2457.9	2195.4	2211.7	2181.4	2381.3	2880.1
45°	3866.7	3669.5	3527.5	3543.9	3387.0	2932.0	2582.6	2574.7	2549.4	2741.9	3136.1
47.5°	4111.0	3938.6	3800.3	3755.0	3736.3	3765.8	3142.2	3001.1	2982.4	3120.7	3539.2
50°	4242.2	4053.5	3882.5	3891.9	4271.2	4556.6	3719.5	3519.1	3526.1	3670.5	4090.4
52.5°	4153.9	3940.5	3760.2	3935.3	4686.0	5083.9	4675.2	4196.0	4358.5	4321.6	4829.8
55°	3746.2	3560.7	3432.7	3746.2	4731.3	5651.5	5851.8	5214.7	5178.3	5094.2	5583.7
57.5°	3060.0	2900.2	2821.3	3152.0	4235.7	6108.8	7033.6	6366.1	6055.5	5703.3	6209.6
60°	2279.9	2162.2	2080.0	2254.7	3337.4	5664.5	7807.6	7451.2	7091.5	6290.5	6772.0
62.5°	1688.6	1592.8	1505.5	1521.3	2298.1	4871.9	8104.7	8600.7	8394.3	6910.3	7302.7
65°	1347.6	1260.2	1199.0	1164.0	1423.3	3665.3	7691.3	9542.9	9781.1	7494.2	7685.7
67.5°	1100.5	1026.7	996.3	1036.5	1116.4	2089.3	6587.1	10114.6	10460.3	8113.6	7780.0
70°	895.4	834.7	831.4	939.8	1028.1	1273.8	4845.2	9719.9	9980.1	8219.1	7214.4
72.5°	624.0	597.4	639.9	793.6	1018.7	1060.8	2782.5	8043.5	8052.8	7259.2	5934.1
75°	353.1	348.9	416.2	632.9	992.1	1050.0	1551.2	5684.2	5688.4	5490.3	4111.0
77.5°	194.3	181.7	242.4	427.9	852.0	1025.8	1000.5	3881.1	3781.7	3055.3	1877.7
80°	89.7	84.5	131.3	274.2	623.1	970.2	802.0	2133.3	1923.5	995.4	458.2
82.5°	36.9	35.0	60.3	176.1	393.8	781.5	675.9	946.3	759.5	189.2	141.5
85°	6.5	7.0	24.8	106.5	220.5	360.1	547.9	449.4	330.2	52.3	77.5
87.5°	0.0	0.0	5.1	25.7	53.2	98.6	222.3	125.7	86.4	15.4	22.9
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°	784.3	784.3	784.3	784.3	784.3	784.3	784.3	784.3	784.3	784.3	784.3
2.5°	958.0	950.1	869.7	873.5	879.1	873.9	873.0	850.6	830.0	897.8	896.8
5°	1211.7	1155.1	1099.6	1078.1	1031.8	971.1	971.6	952.4	932.8	960.4	960.4
7.5°	1392.4	1314.4	1243.9	1118.2	995.9	885.2	875.3	849.2	819.3	855.3	862.3
10°	1434.5	1366.7	1275.7	1091.1	975.3	867.4	748.8	651.1	605.8	584.8	581.1
12.5°	1563.9	1513.4	1309.8	1105.6	938.9	756.2	561.9	446.1	367.1	361.1	352.7
15°	1650.3	1614.8	1343.4	1069.7	784.7	543.7	353.1	270.9	239.2	236.4	232.1
17.5°	1784.3	1722.7	1311.2	955.2	613.8	358.7	237.3	213.9	217.7	226.1	219.5
20°	1839.0	1718.5	1241.1	789.4	431.1	240.6	206.0	193.4	203.2	211.1	207.4
22.5°	1895.0	1730.6	1179.0	650.7	281.7	199.0	183.6	177.0	178.0	185.9	186.4
25°	1894.6	1764.2	1107.0	506.8	209.7	177.0	165.8	157.4	154.1	159.7	158.3
27.5°	1986.6	1725.5	975.8	376.0	184.5	158.3	147.6	137.3	125.7	131.3	131.3
30°	1987.0	1788.5	884.2	270.0	169.1	141.1	131.7	115.8	102.3	107.0	107.4
32.5°	2039.8	1733.9	799.7	206.5	156.9	130.8	110.2	95.8	87.8	90.6	90.6
35°	2100.1	1780.6	669.8	182.2	144.8	116.3	94.4	82.7	76.6	78.9	78.9
37.5°	2299.1	1770.8	579.7	169.6	136.9	105.1	85.9	72.9	70.1	71.5	73.3
40°	2371.0	1840.4	457.3	162.1	123.8	94.8	75.7	65.9	62.1	63.1	63.5
42.5°	2554.1	1855.8	365.3	156.0	112.1	82.2	67.3	60.3	55.6	55.6	57.0
45°	2756.4	1894.6	290.5	150.9	102.3	73.8	60.7	55.1	48.1	47.2	49.0
47.5°	3049.2	2043.1	236.8	140.6	90.6	68.7	56.1	47.6	42.0	40.2	42.0
50°	3539.2	2295.3	209.3	128.0	82.2	64.5	49.5	40.6	36.4	34.1	35.5
52.5°	4230.5	2731.1	194.8	116.3	74.7	57.9	44.4	35.5	31.3	29.4	30.4
55°	4998.5	3230.9	187.8	104.6	68.2	50.9	38.8	31.3	27.6	25.2	25.7
57.5°	5708.4	3700.8	180.8	93.4	61.7	45.3	34.1	27.6	23.8	21.5	22.0
60°	6408.2	4075.9	164.0	80.3	55.6	40.6	29.9	23.8	21.5	18.7	18.7
62.5°	7027.1	4300.1	139.7	69.6	50.0	36.0	26.6	21.5	19.6	16.8	16.8
65°	7448.4	4310.4	112.6	59.8	43.9	30.8	23.4	20.1	18.2	14.9	14.5
67.5°	7454.5	4030.2	90.2	53.2	38.8	27.1	21.0	19.2	16.8	14.0	13.1
70°	6672.1	3329.5	75.2	46.7	33.6	23.8	18.2	18.2	16.3	13.5	12.1
72.5°	5337.1	2544.3	63.1	40.6	29.9	20.6	16.8	17.3	15.9	13.5	12.1
75°	3587.3	1459.2	52.3	34.6	26.2	17.3	16.3	16.8	16.3	13.5	11.7
77.5°	1652.1	464.8	40.6	28.5	22.4	14.5	15.9	15.9	14.9	12.1	10.3
80°	372.3	114.4	29.4	21.0	18.2	10.7	14.5	13.1	11.7	8.4	6.1
82.5°	135.5	35.0	17.7	13.1	11.2	4.2	9.3	9.3	8.4	6.1	3.7
85°	77.5	18.2	9.8	8.4	6.1	1.9	5.1	5.6	4.7	4.2	1.9
87.5°	25.2	4.2	4.7	5.1	4.7	0.9	1.9	1.9	1.4	0.9	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)