

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: P367397

Luminaire Tested: **MSA-SA2C-727-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367397
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2C-727-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8472 lumens
Efficiency: N/A
Efficacy: 75.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

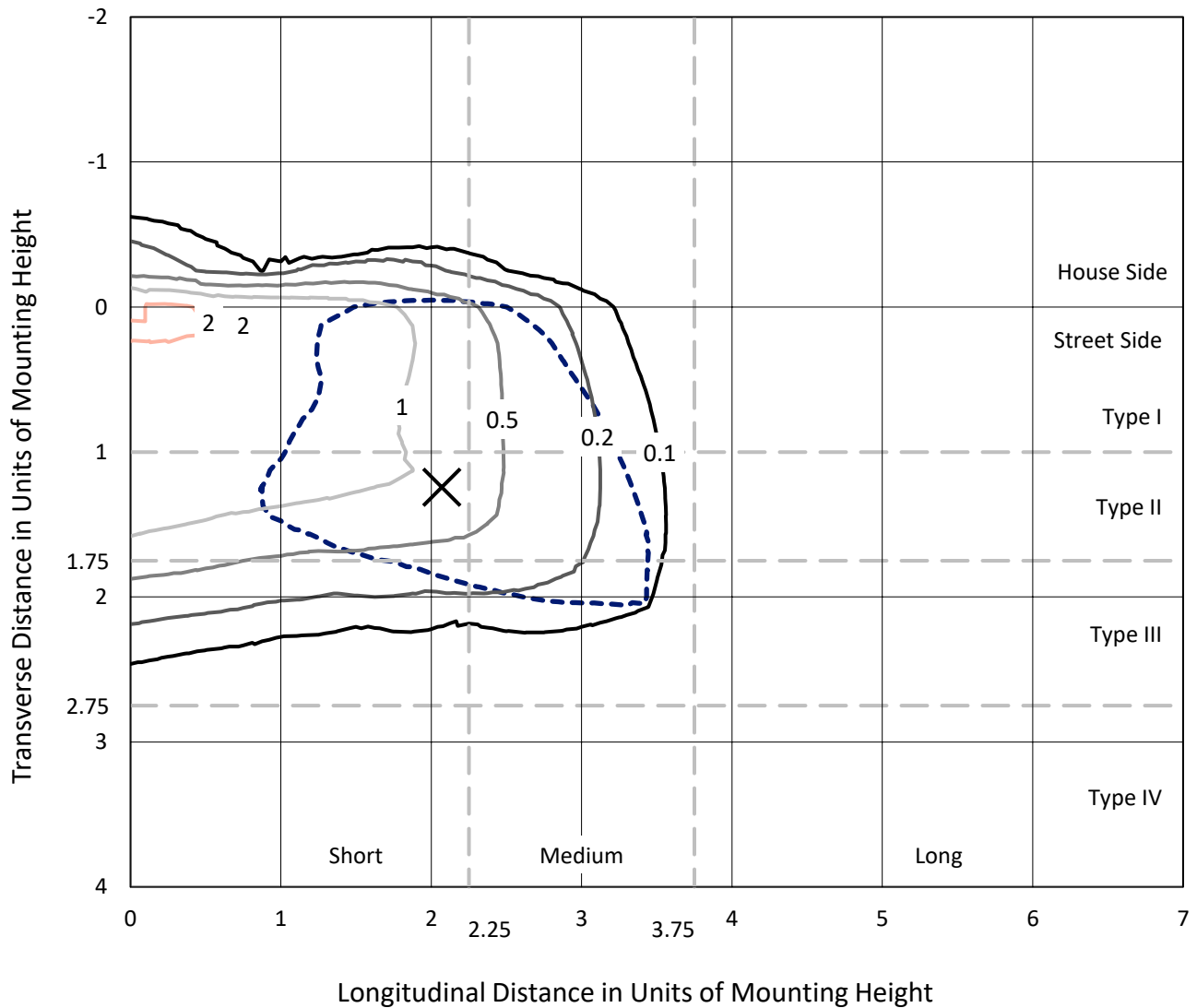
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

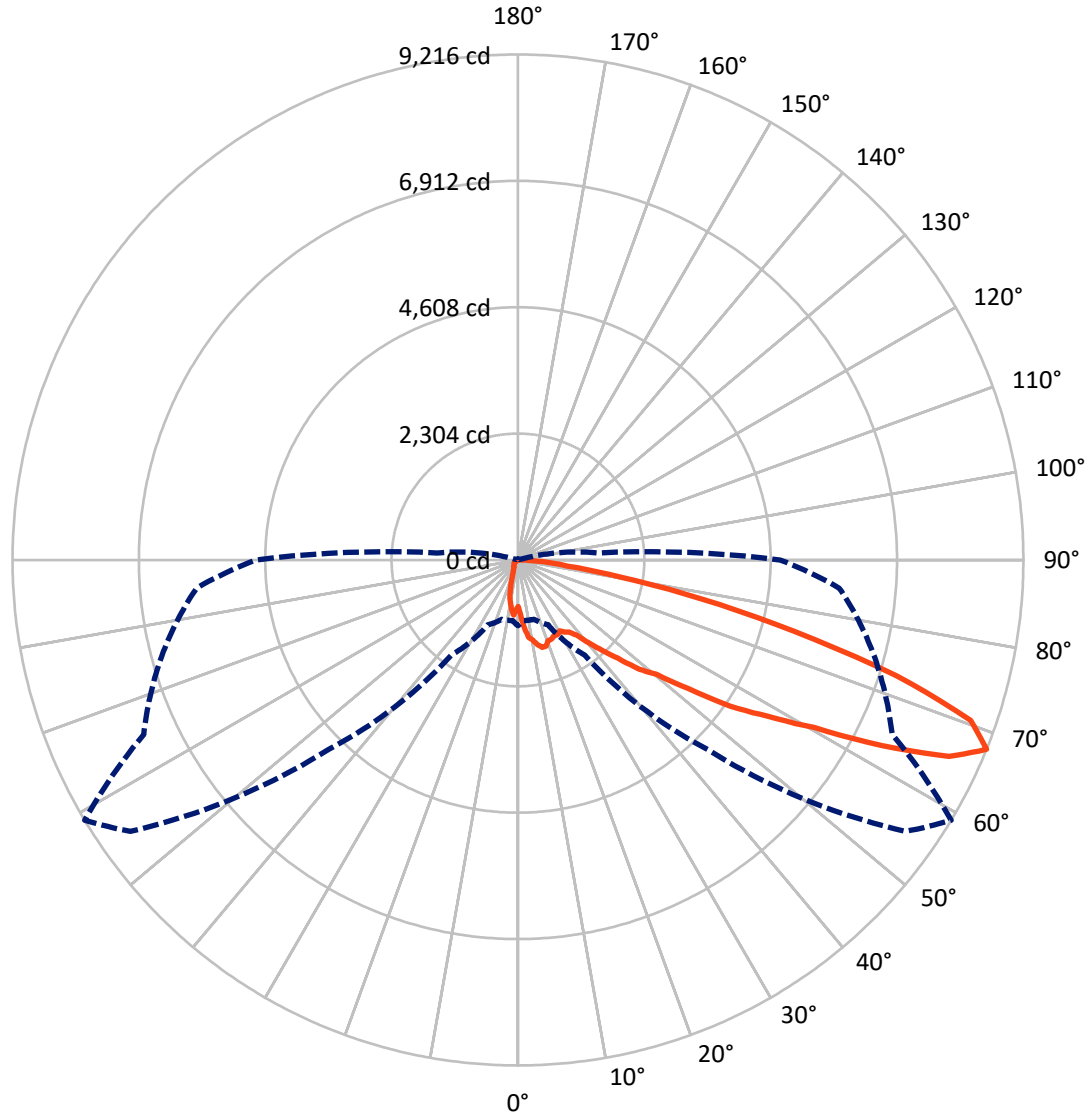
✕ Max cd
 - - - 1/2 Max cd



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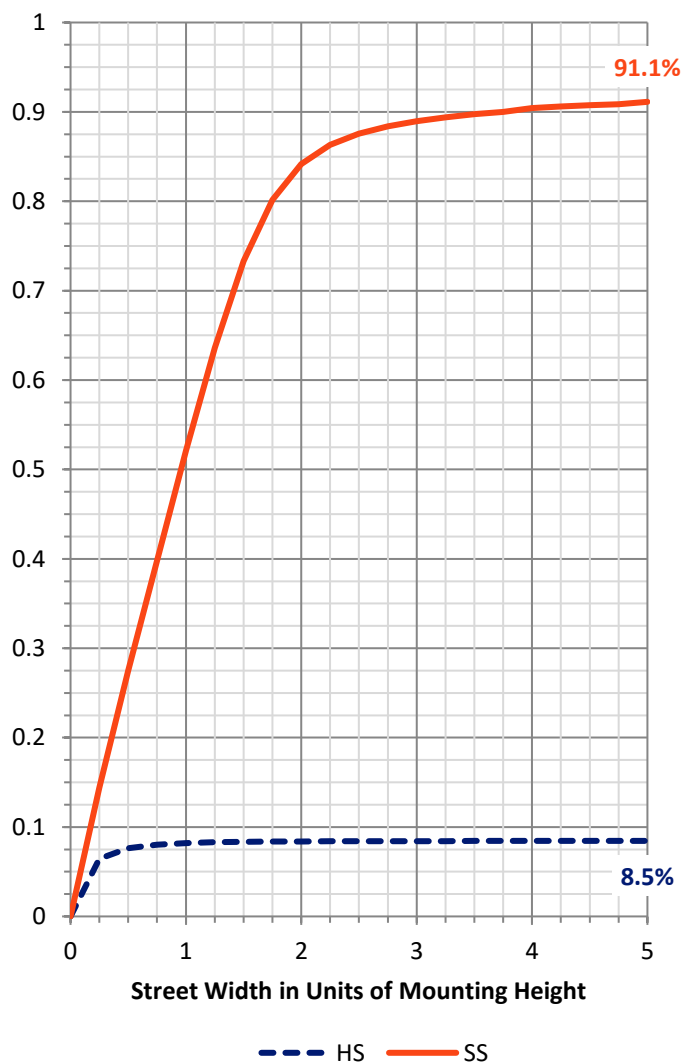
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	720.5	0.0	720.5
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	7751.5	0.0	7751.5
	% Fixture	91.5	0.0	91.5
Total	Lumens	8472.0	0.0	8472.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.1	1.2
10°-20°	290.2	3.4
20°-30°	431.7	5.1
30°-40°	666.0	7.9
40°-50°	1188.5	14.0
50°-60°	2115.0	25.0
60°-70°	2463.2	29.1
70°-80°	1095.4	12.9
80°-90°	119.0	1.4
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°	8472.0	100.0
0°-180°	8472.0	100.0

Coefficient of Utilization

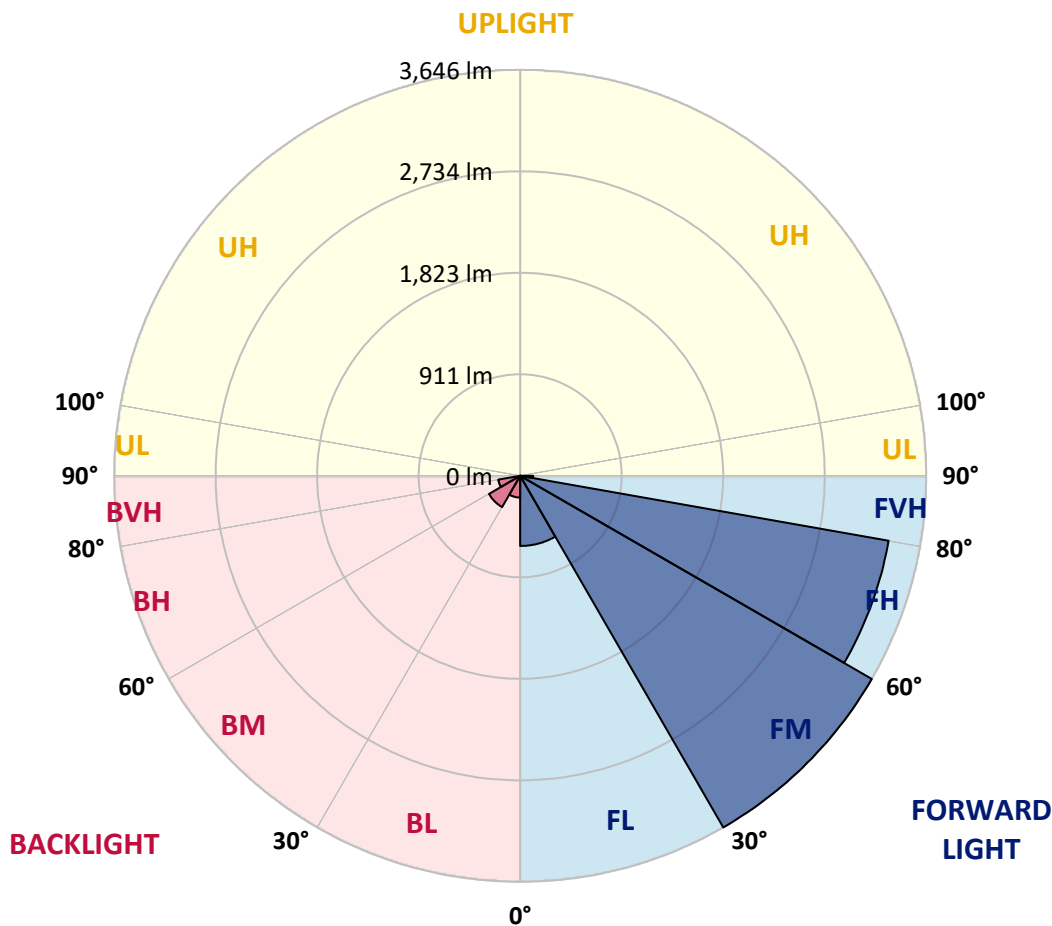


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	630.1	7.4			
FM (30°-60°)	3645.5	43.0			
FH (60°-80°)	3359.1	39.6			G2/5000
FVH (80°-90°)	116.8	1.4			G2/225
BL (0°-30°)	194.8	2.3	B1/500		
BM (30°-60°)	323.9	3.8	B1/1000		
BH (60°-80°)	199.6	2.4	B1/500		G1/500
BVH (80°-90°)	2.1	0.0			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	847.7	847.7	847.7	847.7	847.7	847.7	847.7	847.7	847.7	847.7	847.7
2.5°	1105.0	1063.4	1004.2	1021.8	1037.7	1052.7	1027.8	1013.7	1006.8	945.9	1022.2
5°	1356.8	1304.9	1277.9	1271.0	1253.9	1215.7	1279.2	1250.9	1260.3	1272.3	1297.2
7.5°	1433.6	1410.0	1371.0	1385.6	1320.4	1314.8	1402.7	1427.2	1459.4	1437.5	1467.5
10°	1394.2	1353.4	1371.9	1366.7	1364.1	1421.6	1483.4	1484.7	1532.7	1555.9	1454.2
12.5°	1316.1	1320.8	1386.9	1381.7	1467.5	1582.5	1596.6	1581.6	1660.1	1619.8	1604.4
15°	1368.0	1406.6	1370.1	1382.6	1413.0	1556.7	1606.9	1653.3	1727.5	1751.5	1647.3
17.5°	1430.6	1434.5	1368.0	1352.6	1429.3	1496.3	1614.7	1652.8	1660.1	1870.8	1743.8
20°	1396.7	1429.8	1350.4	1253.0	1372.3	1463.2	1583.3	1571.3	1620.2	1905.9	1765.7
22.5°	1486.8	1439.6	1338.0	1264.6	1304.9	1387.7	1489.4	1567.9	1641.3	1821.8	1794.0
25°	1495.4	1478.2	1387.7	1322.5	1315.7	1336.7	1478.2	1528.9	1643.8	1897.3	1769.9
27.5°	1591.9	1572.2	1386.9	1393.3	1329.0	1264.2	1424.2	1543.0	1690.6	1851.4	1821.0
30°	1716.3	1718.0	1479.1	1499.3	1407.5	1303.2	1468.4	1501.0	1722.3	1924.8	1858.7
32.5°	1842.4	1894.3	1661.4	1554.6	1525.9	1451.2	1413.5	1564.0	1687.6	2050.1	1953.1
35°	2034.2	2069.4	1811.6	1715.9	1603.1	1518.1	1562.7	1616.8	1812.4	2216.1	2077.1
37.5°	2358.9	2295.4	2080.9	1914.5	1887.5	1762.2	1784.5	1736.1	1939.8	2411.7	2322.5
40°	2541.7	2484.2	2261.1	2180.0	2007.6	2026.9	1956.5	1984.9	2124.7	2615.4	2546.0
42.5°	2732.1	2677.2	2481.6	2424.1	2259.8	2180.0	2148.3	2250.0	2408.3	2954.8	2866.4
45°	2923.5	2784.0	2701.2	2730.0	2656.2	2498.3	2461.4	2552.0	2718.0	3371.7	3204.4
47.5°	3084.7	2967.2	2905.0	2891.7	2863.0	3082.2	2932.0	2971.9	3045.3	3740.6	3625.7
50°	3375.6	3259.8	3162.4	3135.4	3275.2	3586.2	3354.6	3277.4	3424.1	4186.3	4113.9
52.5°	3795.6	3648.0	3493.1	3493.6	3757.4	3928.1	4037.9	3902.4	3929.8	4676.7	4644.5
55°	4133.2	3945.7	3817.4	3918.7	4312.0	4407.7	4826.8	4708.0	4672.4	5131.4	5091.9
57.5°	4179.5	3954.7	3893.8	4071.4	4609.7	5220.6	5671.5	5374.6	5320.1	5511.9	5590.4
60°	3747.1	3508.6	3554.5	3840.2	4706.7	5716.1	6447.0	6204.7	5858.5	5957.6	6011.6
62.5°	2794.8	2604.3	2733.0	3111.3	4333.1	6048.1	7344.9	7457.3	6483.1	6292.2	6280.6
65°	1813.3	1694.0	1778.5	2088.7	3279.1	6010.3	8147.1	8634.4	6975.1	6565.0	6365.1
67.5°	1199.4	1108.9	1120.9	1304.5	2120.4	4888.1	8626.6	9215.6	7528.5	6719.9	5880.8
70°	894.0	822.8	827.1	926.6	1258.6	3223.7	7957.9	8757.1	7730.5	6183.2	4746.6
72.5°	644.7	597.1	637.0	747.7	1002.9	1704.7	5931.4	7211.9	6740.9	4877.0	3198.0
75°	446.6	415.2	480.4	625.4	915.4	1058.3	3919.5	5191.4	4724.7	3059.9	1445.6
77.5°	247.5	238.1	332.0	509.6	830.9	867.4	2401.0	3411.2	2620.6	1096.9	344.0
80°	108.1	104.7	160.9	382.6	698.4	783.7	1351.7	1891.3	1030.8	195.6	111.1
82.5°	46.3	44.6	68.6	230.4	507.5	655.5	833.5	910.3	354.8	60.5	63.1
85°	8.2	9.0	27.5	121.4	308.9	332.9	603.6	538.8	178.5	28.7	45.0
87.5°	0.0	0.0	4.3	23.6	57.9	95.2	261.7	188.7	33.9	9.4	7.7
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°	847.7	847.7	847.7	847.7	847.7	847.7	847.7	847.7	847.7	847.7	847.7
2.5°	1033.0	1008.9	917.6	906.0	893.6	875.1	868.2	828.8	823.6	874.2	874.2
5°	1285.6	1199.8	1112.8	1044.1	982.8	897.8	873.8	848.9	828.8	823.6	839.5
7.5°	1419.0	1314.4	1177.5	1002.9	861.4	738.3	686.8	650.8	610.4	622.4	628.9
10°	1411.8	1300.6	1126.1	901.7	744.7	608.7	477.9	401.5	359.1	338.0	335.5
12.5°	1483.4	1378.7	1091.3	821.1	620.7	432.8	300.7	246.2	214.9	215.3	212.8
15°	1525.0	1410.9	1051.0	719.0	437.1	278.4	208.5	196.5	192.2	196.9	194.3
17.5°	1598.4	1444.8	959.6	566.7	300.7	210.2	191.8	187.0	192.6	202.5	199.9
20°	1592.8	1386.0	829.6	399.4	222.2	189.2	181.5	174.2	185.7	196.0	194.3
22.5°	1587.6	1328.5	707.4	294.7	185.7	172.4	166.0	163.0	169.0	181.0	183.6
25°	1542.2	1300.2	583.4	221.4	168.2	156.6	153.6	151.0	153.1	163.0	162.6
27.5°	1597.9	1228.6	450.4	185.7	155.7	142.0	139.4	135.1	130.8	139.4	140.7
30°	1586.3	1238.4	353.0	163.4	143.3	124.8	125.7	116.7	109.0	116.7	116.7
32.5°	1628.4	1166.4	282.7	148.4	130.8	117.5	106.8	97.4	91.8	96.5	97.4
35°	1689.7	1169.4	221.4	139.0	120.1	104.7	91.8	82.4	77.2	79.4	80.6
37.5°	1895.2	1148.8	184.9	131.7	116.3	96.9	83.6	71.2	67.8	70.4	71.6
40°	2029.0	1203.7	163.0	127.8	106.4	89.2	71.6	62.6	59.6	60.9	63.1
42.5°	2281.3	1234.2	152.3	123.5	97.4	76.4	61.3	56.2	51.9	53.6	55.3
45°	2551.1	1286.1	144.1	118.8	90.5	66.9	54.1	49.8	44.2	44.6	46.3
47.5°	2882.7	1409.6	134.7	110.7	81.1	60.9	48.0	41.6	36.5	36.0	38.2
50°	3328.0	1574.8	126.1	100.4	75.1	55.8	42.0	33.9	29.6	28.3	30.0
52.5°	3803.3	1788.4	117.1	93.1	67.8	48.9	36.0	27.5	23.6	22.7	24.0
55°	4274.3	1993.4	108.5	88.4	60.1	42.0	30.5	22.7	19.3	18.4	19.3
57.5°	4810.9	2215.2	97.4	78.9	52.8	36.5	25.3	18.9	15.9	15.0	15.4
60°	5215.0	2293.3	87.9	68.6	45.9	32.2	21.4	15.0	12.9	12.0	12.4
62.5°	5406.8	2165.9	78.9	59.6	40.3	27.9	18.0	12.4	10.7	9.9	9.9
65°	5357.0	1883.6	69.9	51.0	34.7	23.2	14.2	10.7	9.4	8.2	7.7
67.5°	4782.2	1474.0	59.6	42.9	29.2	18.9	12.0	10.3	8.6	7.7	6.4
70°	3792.6	1067.3	48.5	35.6	24.5	15.4	9.4	9.4	8.2	7.7	6.0
72.5°	2485.9	671.8	39.5	28.7	20.2	12.0	7.3	8.6	7.7	7.7	5.6
75°	1077.2	240.2	31.7	23.2	16.7	8.2	6.4	7.7	8.2	7.7	6.4
77.5°	252.2	74.6	24.9	18.4	13.7	5.6	6.4	7.7	8.2	7.3	5.6
80°	94.8	31.7	16.3	12.0	10.7	3.4	5.6	4.7	4.3	3.0	0.9
82.5°	57.5	13.3	8.6	6.0	5.1	0.9	2.6	1.7	0.9	0.9	0.0
85°	40.8	6.4	4.7	4.3	2.6	0.0	0.4	0.0	0.0	0.4	0.0
87.5°	5.6	1.7	2.1	2.1	1.7	0.0	0.0	0.0	0.0	0.0	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)